

SEQUENCE LISTING

<110> Wang, Tongtong
 Peckham, David W.
 Retter, Marc W.
 Fanger, Gary R.

<120> COMPOSITIONS AND METHODS FOR THE THERAPY
 AND DIAGNOSIS OF LUNG CANCER

<130> 210121.455C20

<140> US

<141> 2003-07-17

<160> 560

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 315

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 236, 241

<223> n = A,T,C or G

<400> 1

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cagctgccgt gagactcccg atgtcacagg cagtctgtgt gggtacagcg cccctcagtg 120
ttcatctcca gcagagacaa cggaggaggc tcccaccagg acggttctca ttatttatat 180
gttaatatgt ttgtaaactc atgtacagtt ttttttgggg gggaagcaat gggaanggta 240
naaattacaa atagaatcat ttgctgtaat ccttaaatgg caaacggtca ggccacgtga 300
aaaaaaaaaa aaaaaa                                     315
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<210> 2

<211> 380

<212> DNA

<213> Homo sapiens

<400> 2

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atttaggctt aagatTTTTgt ttacccttgt tactaaggag caaattagta ttaaagtata 60
atatatataa acaaatacaa aaagttttga gtgggttcagc ttttttattt tttttaatgg 120
cataactttt aacaacactg ctctgtaatg ggttgaactg tggactcag actgagataa 180
ctgaaatgag tggatgtata gtgttattgc ataattatcc cactatgaag caaagggact 240
ggataaattc ccagtctaga ttattagcct ttgttaacca tcaagcacct agaagaagaa 300
ttattggaaa ttttgcctc tgtaactggc actttggggg gtgacttatt ttttgccttt 360
gtaaaaaaaaa aaaaaaaaaa                                     380
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<210> 3
 <211> 346
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 316, 317, 318, 322, 323, 326, 329, 330, 331, 336, 337, 339,
 340, 342, 343
 <223> n = A,T,C or G

<400> 3
 ttgtaagtat acaatttttag aaaggattaa atgttattga tcatttttact gaatactgca 60
 catcctcacc atacaccatc cactttccaa taacatttaa tccttttctaa aattgtaagt 120
 atacaattgt actttctttg gattttcata acaaataac catagactgt taattttatt 180
 gaagtttcct taatggaatg agtcattttt gtcttggtgct ttgagggtta cctttgcttt 240
 gacttccaac aatttgatca tatagtgttg agctgtggaa atctttaagt ttattctata 300
 gcaataattt ctattnnnag annccngggn naaaannann annaaa 346

<210> 4
 <211> 372
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 297, 306, 332
 <223> n = A,T,C or G

<400> 4
 actagtctca ttactccaga attatgctct tgtacctgtg tggctggggtt tcttagtcgt 60
 tggtttggtt tggttttttg aactgggatg taggggtggtt cacagttcta atgtaagcac 120
 tctcttctcc aagttgtgct ttgtggggac aatcattctt tgaacattag agaggaaggc 180
 agttcaagct gttgaaaaga ctattgctta tttttgtttt taaagaccta cttgacgtca 240
 tgtggacagt gcacgtgcct tacgctacat cttgttttct aggaagaagg ggatgcnggg 300
 aaggantggg tgctttgtga tggataaaac gnctaaataa cacaccttta cattttgaaa 360
 aaacaaaac aa 372

<210> 5
 <211> 698
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 8, 345, 422, 430, 433, 436, 438, 472, 481, 486, 515, 521,
 536, 549, 553, 556, 557, 559, 568, 593, 597, 605, 611, 613,
 616, 618, 620, 628, 630, 632, 634, 635, 639, 643, 647, 648,
 649, 652, 654, 658, 664, 690
 <223> n = A,T,C or G

<400> 5
 actagtanga tagaaacact gtgtcccgag agtaaggaga gaagctacta ttgattagag 60

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cctaaccag  gttaactgca  agaagaggcg  ggatactttc  agctttccat  gtaactgtat  120
gcataaagcc  aatgtagtcc  agttttctaag  atcatgttcc  aagctaactg  aatcccactt  180
caatacacac  tcatgaactc  ctgatggaac  aataacaggc  ccaagcctgt  ggtatgatgt  240
gcacacttgc  tagactcaga  aaaaataacta  ctctcataaa  tgggtgggag  tattttgggt  300
gacaacctac  tttgcttggc  tgagtgaagg  aatgatattc  atatnttcat  ttattccatg  360
gacatttagt  tagtgctttt  tatataccag  gcatgatgct  gagtgacact  cttgtgtata  420
tntccaaatn  ttngtncngt  cgctgcacat  atctgaaatc  ctatattaag  antttcccaa  480
natgangtcc  ctgggttttc  cagccactt  gatcngtcaa  ngatctcacc  tctgtntgtc  540
ctaaaaccnt  ctncnnang  gttagacngg  acctctcttc  tcccttcccg  aanaatnaag  600
tgtnggaaga  nanccnncn  cccccctncn  tcnncctng  ccngctnnnc  cnctgtngg  660
ggngccgcc  ccgcggggg  gaccccccn  ttttccc  698

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<210> 6

<211> 740

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 82, 406, 426, 434, 462, 536, 551, 558, 563, 567, 582, 584,
592, 638, 651, 660, 664, 673, 675, 697, 706, 711, 715, 716,
717, 723, 724, 725, 733

<223> n = A,T,C or G

<400> 6

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actagtcaaa  aatgctaaaa  taatttggga  gaaaatattt  ttttaagtagt  gttatagttt  60
catgtttatc  ttttattatg  tnttgtgaag  ttgtgtcttt  tcactaatta  cctatactat  120
gccaatattt  ccttatatct  atccataaca  tttatactac  atttgtaaga  gaatatgcac  180
gtgaaactta  acactttata  aggtaaaaat  gaggtttcca  agatttaata  atctgatcaa  240
gttcttgtaa  tttccaaata  gaatggactt  ggtctgttaa  ggggctaagg  gagaagaaga  300
agataagggt  aaaagttggt  aatgaccaa  cattctaaaa  gaaatgcaa  aaaaaattta  360
ttttcaagcc  ttcgaactat  ttaaggaaa  caaaatcatt  tcctanatgc  atatcatttg  420
tgagantttc  tcantaatat  cctgaatcat  tcatttcagc  tnaggcttca  tgttgactcg  480
atatgtcatc  tagggaaagt  ctatttcatg  gtccaaacct  gttgccatag  ttggttaggc  540
tttcctttaa  ntgtgaanta  ttnacangaa  attttctctt  tnanagttct  tnataggggt  600
aggggtgtgg  gaaaagcttc  taacaatctg  tagtgttncg  tgttatctgt  ncagaaccan  660
aatnacggat  cgnangaagg  actgggtcta  tttacangaa  cgaatnatct  ngttnnntgt  720
gtnnncaact  ccngggagcc  740

```

<210> 7

<211> 670

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 265, 268, 457, 470, 485, 546, 553, 566, 590, 596, 613, 624,
639, 653, 659, 661

<223> n = A,T,C or G

<400> 7

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gctggggagc  tcggcatggc  ggtccccgct  gcagccatgg  ggccctcggc  gttggggcag  60
agcgggcccc  gctcgaatgg  cccgtgggtg  tcagtgaagc  gcggcccgtc  gcgctacgtg  120
cttgggatgc  aggagctgtt  ccggggccac  agcaagaccg  cgagttcctg  gcgcacagcg  180

```

```

ccaaggtgca ctcggtggcc tggagttgcg acgggcgctcg cctacctcgg ggtcttcgac 240
aagacgccac gtcttcttgc tgganaanga ccgttgggtca aagaaaaaca ttatcgggga 300
catggggata gtgtggacca ctttgttggc atccaagtaa tcctgacctt tttgttacgg 360
cgtctggaga taaaaccatt cgcattctggg atgtgaggac taaaaaatgc attgccactg 420
tgaacactaa agggggagaac attaatatct gctggantcc tgatgggcan accattgctg 480
tagcnacaag gatgatgtgg tgactttatt gatgccaaga aaccccgttc caaagcaaaa 540
aaacanttcc aanttcgaag tcaccnaaat ctctggaac aatgaacatn aatatnttct 600
tcctgacaat ggnccctggg tgtntcacat cctcagctnc cccaaaactg aancctgtnc 660
natccacccc                                     670

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```

<210> 8
<211> 689
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 253, 335, 410, 428, 448, 458, 466, 479, 480, 482, 483, 485,
488, 491, 492, 495, 499, 500, 502, 503, 512, 516, 524, 525,
526, 527, 530, 540, 546, 550, 581, 593, 594, 601, 606, 609,
610, 620, 621, 622, 628, 641, 646, 656, 673
<223> n = A,T,C or G

```

```

<400> 8
actagtatct aggaatgaac agtaaaagag gagcagttgg ctacttgatt acaacagagt 60
aatgaagta ctggatttgg gaaaacctgg ttttattaga acatatggaa tgaaagccta 120
cacctagcat tgcctactta gccccctgaa ttaacagagc ccaattgaga caaacccctg 180
gcaacaggaa attcaaggga gaaaaagtaa gcaacttggg ctaggatgag ctgactccct 240
tagagcaaaag ganagacagc cccattacc aaataccatt tttgcctggg gcttgtgcag 300
ctggcagtgt tcctgcccc gcatggcacc ttatngtttt gatagcaact tcgttgaatt 360
ttcaccaact tattacttga aattataata tagcctgtcc gtttgctgtg tccaggctgt 420
gatatatntt cctagtgggt tgactttnaa aataaatnag gtttantttt ctccccccnn 480
cnntnctncc nntcnctenn cnntcccccc cnetcngtcc tccnnnttnn gggggggccn 540
ccccnccggn ggacccccct ttggtccctt agtgagggtt natggcccct ggnnttatcc 600
nggccttann tttccccgtg nnaaatgntt cccctccca ntccnccac ctcaanccgg 660
aagcctaagt ttntaccctg ggggtcccc                                     689

```

```

<210> 9
<211> 674
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 602, 632, 639, 668
<223> n = A,T,C or G

```

```

<400> 9
gtccactctc ctttgagtgt actgtottac tgtgcactct gtttttcaac tttctagata 60
taaaaaaatgc ttgttctata gtggagtaag agctcacaca cccaaggcag caagataact 120
gaaaaaagcg aggccttttt gccaccttgg taaaggccag ttcactgcta tagaactgct 180
ataagcctga agggaagtag ctatgagact ttccattttt cttagtcttc ccaataggct 240
ccttcatgga aaaaggcttc ctgtaataat tttcacctaa tgaattagca gtgtgattat 300
ttctgaaata agagacaaat tgggcccgag agtcttcctg tgatttaaaa taaacaaccc 360

```



```

aaagttttgt ttggtcttca ccaaaggaca tactctaggg ggtatgttgt tgaagacatt 420
caaaaacatt agctgttctg tctttcaatt tcaagttatt ttggagactg cctccatgtg 480
agttaattac ttgtctctgg aactagcatt attgtcatta tcatcacatt ctgtcatcat 540
catctgaata atattgtgga tttccccctc tgcttgcac cttcttttgac tcctctggga 600
anaaatgtca aaaaaaaagg tcgatctact cngcaaggnc catctaata ctgcgctgga 660
aggaccnct gcc 674

```

```

<210> 10
<211> 346
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 320, 321, 322, 325, 326, 328, 329, 330, 332, 333, 334, 335,
342
<223> n = A,T,C or G

```

```

<400> 10
actagtctgc tgatagaaag cactatacat cctattgttt ctttctttcc aaaatcagcc 60
ttctgtctgt aacaaaaatg tactttatag agatggagga aaaggtctaa tactacatag 120
ccttaagtgt ttctgtcatt gttcaagtgt attttctgta acagaaacat atttggaatg 180
tttttctttt ccccttataa attgtaattc ctgaaatact gctgctttaa aaagtcccac 240
tgtcagatta tattatctaa caattgaata ttgtaaatat acttgtctta cctctcaata 300
aaagggtact tttctattan nnagnngnnn gnnnnataaa anaaaa 346

```

```

<210> 11
<211> 602
<212> DNA
<213> Homo sapiens

```

```

<400> 11
actagtaaaa agcagcattg ccaaataatc cctaattttc cactaaaaat ataatgaaat 60
gatgttaagc tttttgaaaa gtttaggtta aacctactgt tgttagatta atgtatttgt 120
tgcttccctt tatctggaat gtggcattag cttttttatt ttaaccctct ttaattctta 180
ttcaattcca tgacttaagg ttggagagct aaacactggg atttttggat aacagactga 240
cagttttgca taattataat cggcattgta catagaaagg atatggctac cttttgttaa 300
atctgcactt tctaaatatc aaaaaaggga aatgaagtta taaatcaatt tttgtataat 360
ctgtttgaaa catgagtttt atttgcttaa tattagggct ttgccccttt tctgtaagtc 420
tcttgggac ctgtgtagaa ctgttctcat taaacaccaa acagttaagt ccattctctg 480
gtactagcta caaattcggg ttcatattct acttaacaat ttaaataaac tqaaatattt 540
ctagatggtc tacttctgtt catataaaaa caaaacttga tttccaaaaa aaaaaaaaaa 600
aa 602

```

```

<210> 12
<211> 685
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 170, 279, 318, 321, 322, 422, 450, 453, 459, 467, 468, 470,
473, 475, 482, 485, 486, 491, 498, 503, 506, 509, 522, 526,
527, 528, 538, 542, 544, 551, 567, 568, 569, 574, 576, 582,

```

587, 588, 589, 590, 592, 593, 598, 599, 603, 605, 608

<223> n = A,T,C or G

<221> misc_feature

<222> 633, 634, 635, 644, 646, 648, 651, 655, 660, 662, 663, 672, 674, 675, 682, 683

<223> n = A,T,C or G

<400> 12

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actagtcctg tgaaagtaca actgaaggca gaaagtgtta ggatttttgca tctaattgttc 60
attatcatgg tattgatgga cctaagaaaa taaaaattag actaagcccc caaataagct 120
gcatgcattt gtaacatgat tagtagattt gaatatatag atgtagtatn ttgggtatct 180
aggtgtttta tcattatgta aaggaattaa agtaaaggac tttgtagttg tttttattaa 240
atatgcatat agtagagtgc aaaaatatag caaaaatana aactaaaggt agaaaagcat 300
tttagatatg ccttaatnta nnaactgtgc caggtggccc tcggaataga tgccaggcag 360
agaccagtgc ctgggtggtg cctccccttg tctgcccccc tgaagaactt ccctcacgtg 420
angtagtgcc ctcgtaggtg tcacgtggan tantggganc aggccgnncn gtnanaagaa 480
ancanngtga nagtttcncc gtngangcng aactgtccct gngccnnnac gctcccanaa 540
cntntccaat ngacaatcga gtttccnnnc tcengnaacc tngccgnnnn cnngcccncn 600
cantntgnta accccgcgcc cggatcgctc tcnnntcggt ctncncnaa ngggntttcn 660
cnccgcctgt cncnnccccg cnncc                                     685
```

<210> 13

<211> 694

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 503, 546, 599, 611, 636, 641, 643, 645, 656, 658, 662, 676, 679, 687

<223> n = A,T,C or G

<400> 13

```
cactagtcac tcattagcgt tttcaatagg gctcttaagt ccagtagatt acgggtagtc 60
agttgacgaa gatctggttt acaagaacta attaaatggt tcattgcatt tttgtaagaa 120
cagaataatt ttataaaatg tttgtagttt ataattgccg aaaataattt aaagacactt 180
tttctctgtg tgtgcaaatg tgtgtttgtg atccattttt tttttttttt taggacacct 240
gtttactagc tagctttaca atatgccaaa aaaggatttc tccctgacct catccgtggt 300
tcaccctctt ttccccccat gctttttgcc ctagttttata acaaaggaat gatgatgatt 360
taaaaagtag ttctgtatct tcagtatctt ggtcttccag aaccctctggt ttgggaaagg 420
gatcattttt tactggtcat ttcccttttg agtgactac tttaacagat ggaaagaact 480
cattggccat ggaaacagcc gangtgttgg gagccagcag tgcattggcac cgtccggcat 540
ctggcntgat tgggtctggt gccgtcattg tcagcacagt gccatgggac atggggaana 600
ctgactgcac ngccaatggt tttcatgaag aatacngcat ncnngtgat cactnanc 660
angacgctat gggggncana gggccanttg cttc                                     694
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<210> 14

<211> 679

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 29, 68, 83, 87, 94, 104, 117, 142, 145, 151, 187, 201, 211,
 226, 229, 239, 241, 245, 252, 255, 259, 303, 309, 359, 387,
 400, 441, 446, 461, 492, 504, 505, 512, 525, 527, 533, 574,
 592, 609, 610, 618, 620, 626, 627, 633, 639, 645, 654
 <223> n = A,T,C or G

<400> 14
 cagccgcctg catctgtatc cagcgccang tcccgcagc cccagctgcg cgcgccccc 60
 agtcccgnac ccgttcggcc cangctnagt tagncctcac catnccggtc aaagggangca 120
 ccaagtgcac caaatacctg cngtncggat ntaaattcat cttctggctt gccgggattg 180
 ctgtccntgc cattggacta nggtccgat ncgactctca gaccanganc atcttcganc 240
 naganactaa tnatnatnt tccagcttct acacaggagt ctatattctg atcgatccg 300
 gncctcctnt gatgctggtg ggcttcctga gctgctgcgg ggctgtgcaa gagtcccant 360
 gcatgctggg actgttcttc ggcttcctct tggatgatn cgccattgaa atacctgcgg 420
 ccatctgggg atattccact ncgatnatgt gattaaggaa ntccacggag ttttacaagg 480
 acacgtacaa cnactgaaa accnnggatg anccccaccg ggaancnctg aangccatcc 540
 actatgcgtt gaactgcaat gggttggtg gggnccttga acaatttaat cncatacatc 600
 tggccccann aaaggacntn ctcgannct tcnccgtgna attcngttct gatnccatca 660
 cagaagtctc gaacaatcc 679

<210> 15
 <211> 695
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 105, 172, 176, 179, 189, 203, 212, 219, 221, 229, 231, 238,
 242, 261, 266, 270, 278, 285, 286, 298, 311, 324, 337, 350,
 363, 384, 391, 395, 405, 411, 424, 427, 443, 448, 453, 455,
 458, 463, 467, 470, 479, 482, 484, 493, 499, 505, 518
 <223> n = A,T,C or G

<221> misc_feature
 <222> 520, 523, 531, 540, 584, 595, 597, 609, 611, 626, 628, 651,
 652, 657, 661, 665, 669, 672, 681, 683, 691, 693
 <223> n = A,T,C or G

<400> 15
 actagtggat aaaggccagg gatgctgctc aacctcctac catgtacagg gacgtctccc 60
 cattacaact acccaatccg aagtgtcaac tgtgtcagga ctaanaaacc ctgggttttqa 120
 ttaaaaaagg gcctgaaaaa aggggagcca caaatctgtc tgcttcctca cnttantcnt 180
 tggcaaatna gcattctgtc tcnttggtg cngcctcanc ncaaaaaanc ngaactcnat 240
 cnggccagg aatacatctc ncaatnaacn aaattganca aggcnnctgg aaatgccnga 300
 tgggattatc ntccgcttgt tgancctcta agtttcttc ccttcattcn accctgccag 360
 ccnagttctg ttagaaaaat gccngaattc naacnccgg tttcntactc ngaatttaga 420
 tctncanaaa cttcctggcc acnattcnaa ttnangnca cgnacanatn ccttccatna 480
 ancncacccc acntttgana gccangacaa tgactgcntn aantgaaggc ntgaaggaan 540
 aactttgaaa ggaaaaaaa ctttgtttcc ggccccctcc aacncttctg tgttnancac 600
 tgccttctng naacctgga agcccnnga cagtgttaca tgttgttcta nnaaacngac 660
 ncttnaatnt cnatcttccc nanaacgatt ncnc 695

<210> 16
 <211> 669

<212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 299, 354, 483, 555, 571, 573, 577, 642, 651, 662, 667
 <223> n = A,T,C or G

<400> 16
 cgccgaagca gcagcgcagg ttgtccccgt tccccctccc ccttcccttc tccggttgcc 60
 tccccgggcc cettacactc cacagtcccc gtcccgccat gtcccagaaa caagaagaag 120
 agaaccctgc ggaggagacc ggcgaggaga agcaggacac gcaggagaaa gaaggtattc 180
 tgcctgagag agctgaagag gcaaagctaa aggccaaata cccaagccta ggacaaaagc 240
 ctggaggctc cgacttcctc atgaagagac tccagaaaagg gcaaaagtac tttgactcng 300
 gagactacaa catggccaaa gccaacatga agaataagca gctgccaaagt gcangaccag 360
 acaagaacct ggtgactggg gatcacatcc ccacccaca ggatctgccc agagaaagtc 420
 ctgcctcgtc accagcaagc ttgcgggtgg ccaagttgaa tgatgctgcc ggggctctgc 480
 canatctgag acgcttcctt ccctgccccca cccgggtcct gtgctggctc ctgcccttcc 540
 tgcttttgca gccangggtc aggaagtggc ncnggtngtg gctggaaagc aaaacccttt 600
 cctgttggtg tcccacccat ggagccccctg gggcgagccc angaacttga ncctttttgt 660
 tntcttncc 669

<210> 17
 <211> 697
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 33, 48, 50, 55, 59, 60, 76, 77, 78, 90, 113, 118, 130, 135,
 141, 143, 150, 156, 166, 167, 170, 172, 180, 181, 190, 192,
 194, 199, 201, 209, 212, 224, 225, 226, 230, 233, 234, 236,
 242, 244, 251, 253, 256, 268, 297, 305, 308, 311, 314
 <223> n = A,T,C or G

<221> misc_feature
 <222> 315, 317, 322, 324, 327, 333, 337, 343, 362, 364, 367, 368,
 373, 384, 388, 394, 406, 411, 413, 423, 429, 438, 449, 450,
 473, 476, 479, 489, 491, 494, 499, 505, 507, 508, 522, 523,
 527, 530, 533, 535, 538, 539, 545, 548, 550, 552, 555
 <223> n = A,T,C or G

<221> misc_feature
 <222> 562, 563, 566, 568, 572, 577, 578, 580, 581, 591, 594, 622,
 628, 632, 638, 642, 644, 653, 658, 662, 663, 665, 669, 675,
 680, 686, 689
 <223> n = A,T,C or G

<400> 17
 gcaagatatg gacaactaag tgagaaggta atnctctact gctctagntn ctcnnggcnn 60
 gacgcgctga ggagannnac gctggcccan ctgccggcca cacacgggga tcntggtnat 120
 gcctgcccan gggancccca ncnctcggan cccatntcac acccgnnccn tncgcccacn 180
 ncctggctcn cncngcccng nccagctcnc gnceccctec gccnnnctcn ttnnctctc 240
 cncnccctcc ncnacnacct cctaccncng gctccctccc cagccccccc ccgcaancct 300

```

ccacnacncc ntennencga ancnecnctc genctcngcc cengccccct gccccccgcc 360
cnacnncg cgtcccccg cgenecngc ctccccctt cccacnacag ncnacccgc 420
agnacgcnc tccgccnct gaegcccn cccgccgcgc tcacctcat ggnccnacng 480
ccccgctcnc ncnctgcnc gccgnnngg cgcgccgcc cnnccngtn cncncngng 540
ccccngcngn angengtgcg cncangncc gngccgnnc ncacctccg ncnccgcc 600
cgcccgctgg gggtccccg cncgggntc antcccncc cntncgcca ctntccgntc 660
cnnnctcnc gctcngcgn cgcncncnc ccccccc 697

```

<210> 18

<211> 670

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 234, 292, 329, 437, 458, 478, 487, 524, 542, 549, 550, 557, 576, 597, 603, 604, 646, 665

<223> n = A,T,C or G

<400> 18

```

ctcgtgtgaa ggggtgcagta cctaagccgg agcggggtag aggcgggccg gcacccccctt 60
ctgacctcca gtgccgccgg cctcaagatc agacatggcc cagaacttga acgacttggc 120
gggacggctg cccgccgggc cccggggcat gggcacggcc ctgaagctgt tgctgggggc 180
cggcgccgtg gcctacggtg tgcgcgaatc tgtgttcacc gtggaaggcg ggcncagagc 240
catcttcttc aatcggatcg gtggagtga caggacacta tcctgggccg anggccttca 300
cttcaggatc cttgggtcca gtacccanc atctatgaca ttcgggccag acctcgaaaa 360
aatctcctcc ctacaggctc caaagaccta cagatgggtga atatctccct gcgagtgttg 420
tctcgaccaa tgctcangaa ctctctaaca tgttccancg cctaagggct ggactacnaa 480
gaacgantgt tgccgtccat tgtcacgaag tgctcaagaa tttnggtggc caagttcaat 540
gncctcann ctgatcnccc agcggggcca agttanccct ggttgatccc cgggganctg 600
acnnaaaagg gccaaaggact tcccctcatc ctggataatg tggcncac aaagctcaac 660
tttanccacc 697

```

<210> 19

<211> 606

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 506

<223> n = A,T,C or G

<400> 19

```

actagtgcc aacctcagctc ccaggccagt tctctgaatg tcgaggagtt ccaggatctc 60
tggcctcagt tgctcttggg tattgatggg ggacaaattg gggatggcca gagccccgag 120
tgtcgcttg gctcaactgt ggttgatttg tctgtgcccg gaaagtgttg catcattcgt 180
ccaggctgtg ccctggaaag tactacagcc atcctccaac agaagtacgg actgctcccc 240
tcacatgcgt cctacctgtg aaactctggg aagcaggaag gcccaagacc tgggtgctgga 300
tactatgtgt ctgtccactg acgactgtca aggcctcatt tgcaagggcc accggagcta 360
gggcactagc ctgactttta aggcagtgtg tctttctgag cactgtagac caagcccttg 420
gagctgctgg tttagccttg cacctgggga aaggatgtat ttatttgtat tttcatatat 480
cagccaaaag ctgaatggaa aagttnagaa cattcctagg tggccttatt ctaataagtt 540
tcttctgtct gttttgtttt tcaattgaaa agttattaaa taacagattt agaatctagt 600

```

gagacc

606

<210> 20

<211> 449

<212> DNA

<213> Homo sapiens

<400> 20

```

actagtaaac aacagcagca gaaacatcag tatcagcagc gtcgccagca ggagaatatg 60
cagcgccaga gccgaggaga acccccgctc cctgaggagg acctgtccaa actcttcaaa 120
ccaccacagc cgctgccag gatggactcg ctgctcattg caggccagat aaacacttac 180
tgccagaaca tcaaggagtt cactgcccac aacttaggca agctcttcat ggcccaggct 240
cttcaagaat acaacaacta agaaaaggaa gtttccagaa aagaagttaa catgaactct 300
tgaagtcaca ccagggcaac tcttggaaga aatatatttg catattgaaa agcacagagg 360
atttctttag tgtcattgcc gattttggct ataacagtgt ctttctagcc ataataaaat 420
aaaacaaaat cttgactgct tgctcaaaa 449

```

<210> 21

<211> 409

<212> DNA

<213> Homo sapiens

<400> 21

```

tatcaatcaa ctggtgaata attaaacaat gtgtgggtgtg atcatacaaa gggtaaccact 60
caatgataaa aggaacaagc tgcctatatg tggacaaca tggatgcatt tcagaaactt 120
tatgttgagt gaaagaacaa acacggagaa catactatgt ggttctcttt atgtaacatt 180
acagaaataa aaacagaggc aaccaccttt gaggcagtat ggagtgagat agactggaaa 240
aaggaaggaa ggaaactcta cgctgatgga aatgtctgtg tcttcattgg gtggtagtta 300
tgtggggata tacatttgtc aaaattttatt gaactatata ctaaagaact ctgcatttta 360
ttgggatgta aataatacct caattaaaaa gacaaaaaaa aaaaaaaaaa 409

```

<210> 22

<211> 649

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 263, 353, 610, 635, 646

<223> n = A,T,C or G

<400> 22

```

acaattttca ttatcttaag cacattgtac atttctacag aacctgtgat tattctcgca 60
tgataaggat ggtacttgca tatggtgaat tactactgtt gacagtttcc gcagaaatcc 120
tatttcagtg gaccaacatt gtggcatggc agcaaatgcc aacattttgt ggaatagcag 180
caaacttaca agagaccctg gttgggtttt cgttttgttt tctttgtttt ttcccccttc 240
tcctgaatca gcagggatgg aangagggtta gggaagttaa gaattactcc ttccagtagt 300
agctctgaag tgtcacattt aatatcagtt ttttttaaac atgattctag ttnaatgtag 360
aagagagaag aaagaggaag tgttcaacttt ttttaatacac tgatttagaa atttgatgtc 420
ttatatcagt agttctgagg tattgatagc ttgctttatt tctgccttta cgttgacagt 480
gttgaagcag ggtgaataac taggggcata tatatttttt ttttttgtaa gctgtttcat 540
gatgttttct ttggaatttc cggataagtt caggaaaaca tctgcatgtt gttatctagt 600
ctgaagttn tatccatctc attacaacaa aaacncccag aacggnnttg 649

```

<210> 23
 <211> 669
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 642, 661
 <223> n = A,T,C or G

<400> 23
 actagtgccg tactggctga aatccctgca ggaccaggaa gagaaccagt tcagactttg 60
 tactctcagt caccagctct ggaattagat aaattccttg aagatgtcag gaatgggatc 120
 tatectctga cagccttttg gctgcctcgg cccacagcagc cacagcagga ggaggtgaca 180
 tcacctgtcg tgcccccctc tgtcaagact ccgacacctg aaccagctga ggtggagact 240
 cgcaagggtg tgctgatgca gtgcaacatt gagtcgggtg aggagggagt caaacaccac 300
 ctgacacttc tgctgaagtt ggaggacaaa ctgaaccggc acctgagctg tgacctgatg 360
 ccaaatgaga atatccccga gttggcggct gagctggtgc agctgggctt cattagttag 420
 gctgaccaga gccggttgac ttctctgcta gaagagactt gaacaagtgc aattttgcca 480
 ggaacagtac cctcaactca gccgctgtca ccgtctcttc ttagagctca ctcgggccag 540
 gccctgatct gcgctgtggc tgtcctggac gtgctgcacc ctctgtcctt cccccagtc 600
 agtattacct gtgaagccct tccctccttt attattcagg anggctgggg gggctccttg 660
 nttctaacc 669

<210> 24
 <211> 442
 <212> DNA
 <213> Homo sapiens

<400> 24
 actagtacca tcttgacaga ggatacatgc tcccaaaacg tttgttacca cacttaaaaa 60
 tcactgccat cattaagcat cagtttcaaa attatagcca ttcattgattt actttttcca 120
 gatgactatc attattctag tcctttgaat ttgtaagggg aaaaaaaaca aaaacaaaaa 180
 cttacgatgc actttttctcc agcacatcag atttcaaatt gaaaattaaa gacatgctat 240
 ggtaatgcac ttgctagtac tacacacttt ggtacaacaa aaaacagagg caagaaacaa 300
 cggaaagaga aaagccttcc tttgttggcc cttaaaactga gtcaagatct gaaatgtaga 360
 gatgatctct gacgatacct gtatgttctt attgtgtaaa taaaattgct ggtatgaaat 420
 gacctaaaaa aaaaaaaaga aa 442

<210> 25
 <211> 656
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 330, 342, 418, 548, 579, 608
 <223> n = A,T,C or G

<400> 25
 tgcaagtacc acacactggt tgaattttgc acaaaaagtg actgtaggat caggtgatag 60
 ccccggaatg tacagtgtct tgggtcacca agatgccttc taaaggctga cataccttgg 120
 accctaattg ggcagagagt atagccctag cccagtgggtg acatgaccac tccctttggg 180
 aggcctgagg tagaggggag tggatatgtg tttctcagtg gaagcagcac atgagtgggt 240

```

gacaggatgt tagataaagg ctctagttag ggtgtcattg tcatttgaga gactgacaca 300
ctcctagcag ctggttaaagg ggtgctggan gccatggagg anctctagaa acatttagcat 360
gggctgatct gattacttcc tggcatcccg ctcactttta tgggaagtct tattagangg 420
atgggacagt tttccatata cttgctgtgg agctctggaa cactctctaa atttccctct 480
attaaaaatc actgccctaa ctacacttcc tccttgaagg aatagaaatg gaactttctc 540
tgacatannt cttggcatgg ggagccagcc acaaatgana atctgaacgt gtccagggtt 600
ctcctganac tcactacat agaattgggt aaaccctccc ttggaataag gaaaaa 656

```

```

<210> 26
<211> 434
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 395
<223> n = A,T,C or G

```

```

<400> 26
actagttcag actgccacgc caaccccaga aaatacccca catgccagaa aagtgaagtc 60
ctaggtgttt ccatctatgt ttcaatctgt ccatctacca ggctctcgca taaaaacaaa 120
acaaaaaaac gctgccaggt tttagaagca gttctggtct caaaaccatc aggatcctgc 180
caccagggtt cttttgaaat agtaccacat gtaaaaggga atttggcttt cacttcatct 240
aataactgaa ttgtcaggct ttgattgata attgtagaaa taagtagcct tctgttgtgg 300
gaataagtta taatcagtat tcactctctt gttttttgtc actcttttct ctctaattgt 360
gtcattttgt ctgtttgaaa aatattttct ctatnaaatt aaactaacct gccttaaaaa 420
aaaaaaaaaa aaaa 434

```

```

<210> 27
<211> 654
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 505, 533, 563, 592, 613, 635, 638
<223> n = A,T,C or G

```

```

<400> 27
actagtccaa cacagtcaga aacattgttt tgaatcctct gtaaaccaag gcattaatct 60
taataaacca ggatccattt aggtaccact tgatataaaa aggatatcca taatgaatat 120
tttatactgc atcctttaca ttagccacta aatacgttat tgcttgatga agacctttca 180
cagaatccta tggattgcag catttcaact ggctacttca taccatgcc ttaaagaggg 240
gcagtttctc aaaagcagaa acatgccgcc agttctcaag ttttctcct aactccattt 300
gaatgtaagg gcagctggcc cccaatgtgg ggaggtccga acattttctg aattcccatt 360
ttcttgttcg cggtaaatg acagtttctg tcattactta gattccgac tttcccaaag 420
gtgttgattt acaaagaggc cagctaatag cagaaatcat gaccctgaaa gagagatgaa 480
attcaagctg tgagccaggc agganctcag tatggcaaag gtcttgagaa tcngccattt 540
ggtacaaaaa aaatttttaa gcntttatgt tataccatgg aaccatagaa anggcaaggg 600
aattgttaag aanaatttta agtgtccaga ccanaanga aaaaaaaaaa aaaa 654

```

```

<210> 28
<211> 670
<212> DNA

```


<213> Homo sapiens

<220>

<221> misc_feature

<222> 101, 226, 274, 330, 385, 392, 397, 402, 452, 473, 476, 532, 534, 538, 550, 583, 595, 604, 613, 622, 643, 669

<223> n = A,T,C or G

<400> 28

```
cgtgtgcaca tactgggagg atttccacag ctgcacggtc acagccctta cggattgccca 60
ggaaggggcg aaagatatgt gggataaact gagaaaagaa nccaaaaacc tcaacatcca 120
aggcagctta ttggaactct gcggcagcgg caacggggcg gcgggggtccc tgctcccggc 180
gttcccgggtg ctctctggtgt ctctctcggc agcttttagcg acctgncttt ccttctgagc 240
gtgggggccag ctccccccgc ggcgcccacc caenctcaact ccatgctccc ggaaatcgag 300
aggaagatca ttagttcttt ggggacgttn gtgattctct gtgatgctga aaaacactca 360
tatagggaat gtgggaaatc ctganctctt tnttatntcg tntgatttct tgtgttttat 420
ttgccaaaat gttaccaatc agtgaccaac cnagcacagc caaaaatcgg acntcngctt 480
tagtccgtct tcacacacag aataagaaaa cggcaaaccc accccacttt tnantttnat 540
tattactaan ttttttctgt tgggcaaaaag aatctcagga acngccctgg ggccnccgta 600
ctanagttaa ccnagctagt tncatgaaaa atgatgggct ccncctcaat gggaaagcca 660
agaaaaagnc                                     670
```

<210> 29

<211> 551

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 336, 474, 504, 511, 522, 523, 524, 540, 547

<223> n = A,T,C or G

<400> 29

```
actagtcttc cacagcctgt gaatccccct agacctttca agcatagtga gcggagaaga 60
agatctcagc gtttagccac cttacccatg cctgatgatt ctgtagaaaa ggtttcttct 120
ccctctccag ccactgatgg gaaagtattc tccatcagtt ctcaaaatca gcaagaatct 180
tcagtaccag aggtgcctga tgttgacat ttgccacttg agaagctggg accctgtctc 240
cctcttgact taagtcgtgg ttcagaagtt acagcaccgg tagcctcaga ttcctcttac 300
cgtaatgaat gtcccagggc agaaaaagag gatacncaga tgcttccaaa tccttcttcc 360
aaagcaatag ctgatgggaa gaggagctcc agcagcagca ggaatatcga aaacagaaaa 420
aaaagtgaat ttgggaagac aaaagctcaa cagcatttqg taaggagaaa aganaagatg 480
aggaaggaag agagaagaga gacnaagatc nctacggacc gnnncggaag aagaagaagn 540
aaaaaanaaa a                                     551
```

<210> 30

<211> 684

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 545, 570, 606, 657, 684

<223> n = A,T,C or G

<400> 30

```

actagttcta tctggaaaaa gcccggttg gaagaagctg tggagagtgc gtgtgcaatg 60
cgagactcat ttcttggaag catccctggc aaaaatgcag ctgagtacaa ggttatcact 120
gtgatagaac ctggactgct ttttgagata atagagatgc tgcagtctga agagacttcc 180
agcacctctc agttgaatga attaatgatg gcttctgagt caactttact ggctcaggaa 240
ccacgagaga tgactgcaga tgtaatcgag cttaaaggga aattcctcat caacttagaa 300
ggtggtgata ttcgtgaaga gtcttcttat aaagtaattg tcatgccgac tacgaaagaa 360
aaatgcccc gttgttgga gtatacagcg ggagtcttca gatacactgt gtcctcgatg 420
tgcagaagtt gtcagtggga aaatagtatt aacagctcac tcgagcaaga accctcctga 480
cagtactggg ctagaagttt ggatggatta ttacaatat aggaaagaaa gccagaatt 540
aggtnatgag tggatgagta aatggtggan gatggggaat tcaaatcaga attatggaag 600
aagttnttcc tgttactata gaaaggaatt atgtttattt acatgcagaa aatatanatg 660
tgtggtgtgt accgtggatg gaan 684

```

<210> 31

<211> 654

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 326, 582, 651

<223> n = A,T,C or G

<400> 31

```

gcgcagaaaa ggaaccaata tttcagaaac aagcttaata ggaacagctg cctgtacatc 60
aacatcttct cagaatgacc cagaagttat catcgtggga gctggcgtgc ttggctctgc 120
tttggcagct gtgctttcca gagatggaag aaaggtgaca gtcattgaga gagacttaaa 180
agagcctgac agaatagttg gagaattcct gcagccgggt gggtatcatg ttctcaaaga 240
ccttggctct ggagatacag tgggaaggtct tgatgccag gttgtaaatg gttacatgat 300
tcattgatcag ggaagcaaaa tcagangttc agattcctta ccctctgtca gaaaacaatc 360
aagtgcagag tggaaagagct ttccatcacg gaagattcat catgagtctc cgaaaagcag 420
ctatggcaga gcccaatgca aagtttattg aaggtgttgt gttacagtta ttagaggaag 480
atgatgttgt gatgggagtt cagtacaagg ataaagagac tgggagatat caaggaactc 540
catgctccac tgactgttgt tgcagatggg cttttctcca anttcaggaa aagcctggtc 600
tcaataaagt ttctgtatca ctcatcttggg tggcttctta tgaagaatgc nccc 654

```

<210> 32

<211> 673

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 376, 545, 627

<223> n = A,T,C or G

<400> 32

```

actagtgaag aaaaagaaat totgatacgg gacaaaaatg ctcttcaaaa catcattctt 60
tatcacctga caccaggagt ttctattgga aaaggatttg aacctggtgt tactaacatt 120
ttaaagacca cacaaggaag caaaatcttt ctgaaagaag taaatgatac acttctggtg 180
aatgaattga aatcaaaaga atctgacatc atgacaacaa atggtgtaat tcatgttgta 240
gataaactcc totatccagc agacacacct gttggaaatg atcaactgct ggaaatactt 300
aataaattaa tcaaatacat ccaaattaag tttgttcgtg gtagcacctt caaagaaatc 360

```

```

cccgtgactg tctatnagcc aattattaaa aaatacacca aaatcattga tgggagtgcc 420
tgtgggaaat aactgaaaaa gagaccgaga agaacgaatc attacaggtc ctgaaataaa 480
atacctagga tttctactgg aggtggagaa acagaagaac tctgaagaaa ttgttacaag 540
aagangtccc aaggtcacca aattcattga aggtggtgat ggtctttatt tgaagatgaa 600
gaaattaaaa gacgcttcag ggagacnccc catgaaggaa ttgccagcca caaaaaaatt 660
cagggattag aaa 673

```

```

<210> 33
<211> 673
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 325, 419, 452, 532, 538, 542, 571, 600, 616, 651, 653, 672
<223> n = A,T,C or G

```

```

<400> 33
actagtattt tactttcctc cgcttcagaa ggtttttcag actgagagcc taagcatact 60
ggatctgttg tttcttttgg gtctcacctc atcagtgtgc atagtggcag aaattataaa 120
gaaggttgaa aggagcaggg aaaagatcca gaagcatgtt agttcgacat catcatcttt 180
tcttgaagta tgatgcataat tgcattattt tatttgcaaa ctaggaattg cagtctgagg 240
atcattttaga agggcaagtt caagaggata tgaagatttg agaacttttt aactattcat 300
tgactaaaaa tgaacattaa tgttnaagac ttaagacttt aacctgctgg cagtcccaaa 360
tgaaattatg caactttgat atcatattcc ttgattttaa ttgggctttt gtgattgant 420
gaaactttat aaagcatatg gtcagttatt tnattaaaaa ggcaaaacct gaaccacctt 480
ctgcacttaa agaagtctaa cagtaacaaat acctatctat ctagatgga tntatttntt 540
tntattttta aatattgtac tatttatggt nggtggggct ttcttactaa tacacaaatn 600
aatttatcat ttcaanggca ttctatttgg gtttagaagt tgattccaag nantgcata 660
ttcgctactg tnt 673

```

```

<210> 34
<211> 684
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 414, 472, 480, 490, 503, 507, 508, 513, 523, 574, 575, 598,
659, 662, 675
<223> n = A,T,C or G

```

```

<400> 34
actagtttat tcaagaaaag aacttactga ttctctgtt cctaaagcaa gagtggcagg 60
tgatcagggc tgggtgtagca tccggttcct ttagtgcagc taactgcatt tgtcactgat 120
gaccaaggag gaaatcacta agacatttga gaagcagtg tatgaacgtt cttggacaag 180
ccacagttct gaggcttaac cctgtagtgt gcacacaaga acgagctcca cctccccctc 240
ttcaggagga atctgtgcgg atagattggc tggacttttc aatggttctg ggttgcaagt 300
gggcactgtt atggctgggt atggagcgga cagccccagg aatcagagcc tcagcccggc 360
tgcttggttg gaaggtacag gtgttcagca ccttcggaaa aagggcataa agtngtgggg 420
gacaattctc agtccaagaa gaatgcattg accattgctg gctatttgct tncctagtan 480
gaattggatn catttttgac cangatnntt ctncatgct ttnttgcaat gaaatcaaat 540
cccgatttat ctacaagtgg tatgaagtc tgcnncccc agagaggctg ttcaggcnat 600
gtcttccaag ggcagggtgg gttacaccat ttacctccc ctctcccccc agattatgna 660

```

cncagaagga atttntttcc tccc

684

<210> 35

<211> 614

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 17, 20, 152, 223, 267, 287, 304, 306, 316, 319, 321, 355,
365, 382, 391, 407, 419, 428, 434, 464, 467, 477, 480, 495,
499, 505, 515, 516, 522, 524, 527, 542, 547, 549, 567, 572,
576, 578

<223> n = A,T,C or G

<400> 35

```
actagtccaa cgcggtngcn aatattcccc tggtagccta cttccttacc cccgaatatt 60
ggtaagatcg agcaatggct tcaggacatg ggttctcttc tcctgtgac attcaagtgc 120
tactgcatg aagactggct tgtctcagtg tntcaacctc accagggctg tctcttggtc 180
cacacctcgc tccctgtag tgccgtatga cagcccccat canatgacct tggccaagtc 240
acggtttctc tgtggtcaat gttggtnggc tgattgggtg aaagtanggt ggaccaaagg 300
aagncncgtg agcagncanc nccagttctg caccagcagc gcctccgtcc tactnggggtg 360
ttcngtittc tcctggccct gngtgggcta nggcctgatt cgggaanatg cctttgcang 420
gaaggganga taantgggat ctaccaattg attctggcaa aacnatntct aagattnttn 480
tgctttatgt ggganacana tctanctctc atttntgtct gnanatnaca ccctactcgt 540
gntcgancnc gtcttcgatt ttcgganaca cnccantnaa tactggcggt ctgttggttaa 600
aaaaaaaaaa aaaa 614
```

<210> 36

<211> 686

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 222, 224, 237, 264, 285, 548, 551, 628, 643, 645, 665, 674

<223> n = A,T,C or G

<400> 36

```
gtggctggcc cggttctcgc cttctcccca tcccctactt tcctccctcc ctccctttcc 60
ctccctcgtc gactgttgct tgctggctgc agactccctg accctccct caccctcccc 120
taacctcggg gccaccgat tgcccttctt ttctgttgcc ccagcccagc cctagtgtca 180
gggcgggggc ctggagcagc ccgaggcact gcagcagaag anaaaaaga caccgacnaac 240
ctcagctcgc cagtccgggc gctngcttcc cgccgcattg caatnagaca gacgccgctc 300
acctgtctcg ggcacacgcg acccgtgggt gatttggcct tcagtggcat cacccttatg 360
ggtatttctt aatcagcgcg tgcaaagatg gttaacctat gctacgccag ggagatacag 420
gagactggat tggaacattt ttgggggtcta aaggtctggt tggggtgcaa cactgaataa 480
ggatgccacc aaagcagcta cagcagctgc agatttcaca gcccaagtgt gggatgctgt 540
ctcagganat naattgataa cctggctcat aacacattgt caagaatgtg gatttcccca 600
ggatattatt atttgtttac cggggganag gataactgtt tcncntatnt taattgaaca 660
aactnaaaca aaanctaagg aaatcc 686
```

<210> 37

<211> 681

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 7, 10, 11, 19, 25, 32, 46, 53, 77, 93, 101, 103, 109, 115,
123, 128, 139, 157, 175, 180, 192, 193, 194, 212, 218, 226,
227, 233, 240, 241, 259, 260, 267, 289, 296, 297, 298, 312,
313, 314, 320, 325, 330, 337, 345, 346, 352, 353, 356

<223> n = A,T,C or G

<221> misc_feature

<222> 382, 385, 400, 427, 481, 484, 485, 491, 505, 515, 533, 542,
544, 554, 557, 560, 561, 564, 575, 583, 589, 595, 607, 619,
628, 634, 641, 645, 658, 670

<223> n = A,T,C or G

<400> 37

```
gagacanacn naacgtcang agaanaaaag angcatggaa cacaanccag gcnccgatggc 60
caccttccca ccagcancca gcgcccccca gcncccccca ngnccggang accangactc 120
canctgnat caatctganc tctattcctg gcccatnctt acctcggagg tggangccgn 180
aaaggtcgca cnnncagaga agctgctgcc ancaccancc gcccnnccc tgnccgggctn 240
nataggaaac tgggtgaccnn gctgcanaat tcatacagga gcacgcgang ggcacnnnct 300
cacactgagt tnnngatgan gcctnaccan ggacctnccc cagcnnattg annacnggac 360
tgccggaggaa ggaagacccc gnaonggato ctggccggcn tgccaccccc ccacccttag 420
gattatnccc cttgactgag tctctgaggg gctaccgaa cccgctcca ttccctacca 480
natnntgctc natcgggact gacangctgg ggatnggagg ggctatcccc cancatcccc 540
tnanaccaac agcnacngan natnggggct cccnggggtc ggngcaacnc tctncacccc 600
cggcgcnngc cttcggtgnt gtctctcctc aacnaattcc naaanggcgg gccccccngt 660
ggactcctcn ttgttccctc c                                     681
```

<210> 38

<211> 687

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 3, 30, 132, 151, 203, 226, 228, 233, 252, 264, 279, 306,
308, 320, 340, 347, 380, 407, 429, 437, 440, 445, 448, 491,
559, 567, 586, 589, 593, 596, 603, 605, 606, 609, 626, 639,
655, 674, 682

<223> n = A,T,C or G

<400> 38

```
canaaaaaaaa aaaacatggc cgaaaccagn aagctgcgcg atggcgccac ggccccctctt 60
ctcccgccct gtgtccggaa ggtttccctc cgaggcgccc cggctccgcg aagcggaggga 120
gagggcgggg cntgcccggg ccggagctca naggccctgg ggccgctctg ctctcccgcc 180
atcgcaaggg cggcgctaac ctnaggcctc cccgcaaagg tcccnangc gngggcgggc 240
gggggctgtg anaaccgcaa aaanaacgct gggcgcgcn ggaacccgtc ccccccgcg 300
aaggananac ttccacagan gcagcgtttc cacagccan agccacnttt ctagggtgat 360
gcaccccgat aagttcctgn cggggaagct caccgctgtc aaaaaanctc ttcgctccac 420
cggcgcacna aggggangan ggcangangc tgccgcccgc acaggtcatc tgatcacgtc 480
gcccgccta ntctgctttt gtgaatctcc actttgttca accccaccgc ccgttctctc 540
```

```
ctccttgccg cttcctctna ccttaanaac cagcttcctc taccnctng tanttncctc 600
gcncnngtng aaattaattc ggccnccgg aacctcttnc ctgtggcaac tgctnaaaga 660
aactgctgtt ctgnttactg cngtccc 687
```

```
<210> 39
<211> 695
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 300, 401, 423, 429, 431, 437, 443, 448, 454, 466, 492, 515,
523, 524, 536, 538, 541, 552, 561, 566, 581, 583, 619, 635,
636, 641, 649, 661, 694
<223> n = A,T,C or G
```

```
<400> 39
actagtctgg cctacaatag tgtgattcat gtaggacttc tttcatcaat tcaaaacccc 60
tagaaaaacg tatacagatt atataagtag ggataagatt tctaacattt ctgggctctc 120
tgaccctctg ctagactgt ggaaaggag tattattata gtatacaaca ctgctgttgc 180
cttattagtt ataactgat aggtgctgaa ttgtgattca caatttaaaa aactgtaat 240
ccaaactttt ttttttaact gtagatcatg catgtgaatg ttaatgttaa tttgttcaan 300
gttggttatg gtagaaaaaa ccacatgcct taaaatttta aaaagcaggg cccaaactta 360
ttagttttaa attaggggta tgtttccagt ttgttattaa ntggttatag ctctgtttag 420
aanaaatcna ngaacangat ttngaaantt aagntgacat tatttnccag tgacttgtaa 480
atttgaaatc anacacggca ccttcogttt tggtnctatt ggnntttgaa tccaancngg 540
ntccaaatct tnttggaac ngtcnnttta acttttttac nanatcttat ttttttattt 600
tggaatggcc ctatttaang ttaaaagggg ggggnnccac naccattcnt gaataaaact 660
naatatatat ccttggtccc caaaatttta agng 695
```

```
<210> 40
<211> 674
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 403, 428, 432, 507, 530, 543, 580, 583, 591, 604, 608, 621,
624, 626, 639, 672
<223> n = A,T,C or G
```

```
<400> 40
actagtagtc agttgggagt gggtgctata ccttgacttc atttatatga atttccactt 60
tattaaataa tagaaaagaa aatcccgggtg cttgcagtag agttatagga cattctatgc 120
ttacagaaaa tatagccatg attgaaatca aatagtaaag gctgttctgg ctttttatct 180
tcttagctca tcttaataaa gtagtacact tgggatgcag tgcgtctgaa gtgctaata 240
gttgtaacaa tagcacaat cgaacttagg atgtgtttct tctcttctgt gtttcgattt 300
tgatcaattc ttaattttg ggaacctata atacagtttt cctattcttg gagataaaaa 360
ttaaattgat cactgatatt taagtcattc tgcttctcat ctnaatattc catattctgt 420
attagganaa antacctccc agcacagccc cctctcaaac cccacccaaa accaagcatt 480
tggaatgagt ctcctttatt tccgaantgt ggatggtata acccatatcn ctccaatttc 540
tgnttgggtt gggatattaat ttgaactgtg catgaaaagn ggnaatcttt nctttgggtc 600
aaantttnc ggtaatttg nctngncaaa tccaatttnc ttaagggtg tctttataaa 660
atttgctatt cngg 674
```

<210> 41
 <211> 657
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 243, 247, 251, 261, 267, 272, 298, 312, 315, 421, 432, 434,
 501, 524, 569, 594, 607, 650
 <223> n = A,T,C or G

<400> 41
 gaaacatgca agtaccacac actgttttgaa ttttgcacaa aaagtgactg tagggatcag 60
 gtgatagccc cggaatgtac agtgtccttg tgcaccaaga tgccttctaa aggctgacat 120
 accttgggac cctaattggg cagagagtat agccctagcc cagtgggtgac atgaccactc 180
 cctttgggag gctgaagtta aagggaatgg tatgtgtttt ctcattggaag cagcacatga 240
 atnggttnaca ngatgttaaa ntaaggntct antttgggtg tcttgtcatt tgaaaaantg 300
 acacactcct ancanctggt aaaggggtgc tgggaagccat ggaagaactc taaaaacatt 360
 agcatgggct gatctgatta cttcctggca tcccgcctcac ttttatggga agtcttatta 420
 naaggatggg ananttttcc atatccttgc tgttggaact ctggaacact ctctaaattt 480
 ccctctatta aaaatcactg nccttactac acttctcctc tganggaata gaaatggacc 540
 tttctctgac ttagttcttg gcatgggganc cagcccaaat taaaatctga cttntccggt 600
 ttctccngaa ctacactact tgaattggta aaacctcctt tggaattagn aaaaacc 657

<210> 42
 <211> 389
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 179, 317, 320
 <223> n = A,T,C or G

<400> 42
 actagtgtcg aggaatgtaa acaagtttgc tgggccttgc gagacttcac caggttgttt 60
 cgatagctca cactcctgca ctgtgcctgt caccagga tgtctttttt aattagaaga 120
 caggaagaaa acaaaaacca gactgtgtcc cacaatcaga aacctccgtt gtggcagang 180
 ggccttcacc gccaccaggg tgtcccgcca gacagggaga gactccagcc ttctgaggcc 240
 atcctgaaga attcctgttt ggggggttgtg aaggaaaatc acccgattt aaaaagatgc 300
 tgttgccctgc ccgcgtngtn gggaaggagc tggtttctct gtgaatttct taaaagaaaa 360
 atattttaag ttaagaaaaa aaaaaaaaaa 389

<210> 43
 <211> 279
 <212> DNA
 <213> Homo sapiens

<400> 43
 actagtgaca agctcctggt cttgagatgt cttctcggtt aggagatggg ccttttggag 60
 gtaaaggata aaatgaatga gttctgtcat gattcactat tctagaactt gcatgacctt 120
 tactgtgtta gctctttgaa tgttcttgaa atttttagact ttctttgtaa acaataata 180
 tgtccttacc attgtataaa agctgttatg tgcaacagtg tggagatcct tgtctgattt 240

aataaaatac ttaaactg aaaaaaaaaa aaaaaaaaaa

279

<210> 44

<211> 449

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 245, 256, 264, 266, 273, 281, 323, 325, 337, 393

<223> n = A,T,C or G

<400> 44

```
actagtagca tcttttctac aacgttaaaa ttgcagaagt agcttatcat taaaaaacia 60
caacaacaac aataacaata aatcctaagt gtaaatcagt tattctaccc cctaccaagg 120
atatagcctt gttttttccc ttttttctcc tgggaataat tgtgggcttc ttcccaaatt 180
tctacagcct ctttctctct ctcattgctt agcttccctg tttgcacgca tgcgttgtgc 240
aagantgggc tgtttngctt ggantncggg ccnagtggaa ncatgcttcc ccttgttact 300
gttggaagaa actcaaacct tcnancccta ggtgttncca ttttgtcaag tcatcactgt 360
atttttgtac tggcattaac aaaaaaagaa atnaaatatt gttccattaa actttaataa 420
aactttaaaa gggaaaaaaa aaaaaaaaaa 449
```

<210> 45

<211> 559

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 263

<223> n = A,T,C or G

<400> 45

```
actagtgtgg gggaatcacg gacacttaaa gtcaatctgc gaaataattc ttttattaca 60
cactcactga agtttttgag tcccagagag ccattctatg tcaaacattc caagtactct 120
ttgagagccc agcattacat caacatgccc gtgcagttca aaccgaagtc cgcaggcaaa 180
tttgaagctt tgcttgatc tcaaacagat gaaggcaaga gtattgctat tcgactaatt 240
ggtgaagctc ttggaaaaaa ttnactagaa tactttttgt gtttaagttaa ttacataagt 300
tgtattttgt taactttatc tttctacact acaattatgc ttttgtatat atattttgta 360
tgatggatat ctataattgt agatttttgt tttacaagct aatactgaag actcgactga 420
aatattatgt atctagccca tagtattgta cttaactttt acaggggtgaa aaaaaaattc 480
tgtgtttgca ttgattatga tattctgaat aaatatggga atatatttta atgtgggtaa 540
aaaaaaaaaa aaaaaaggaa 559
```

<210> 46

<211> 731

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 270, 467, 477, 502, 635, 660, 671, 688, 695, 697, 725

<223> n = A,T,C or G


```

<400> 46
actagttcta gtaccatggc tgtcatagat gcaaccatta tattccattt agtttcttcc 60
tcaggttccc taacaattgt ttgaaactga atatatatgt ttatgtatgt gtgtgtgttc 120
actgtcatgt atatggtgta tatgggatgt gtgcagtttt cagttatata tatattcata 180
tatacatatg catatatatg tataatatat atatatatat gcatacactt gtataatata 240
catatatata cacatatatg cacacatatn atcactgagt tccaaagtga gtctttatatt 300
ggggcaattg tattctctcc ctctgtctgc tcaactgggc tttgcaagac atagcaattg 360
cttgatttcc tttggataag agtcttatct tccgcaactt tgactctagc ctttaacttta 420
gatttctatt ccagaatacc tctcatatct atcttaaaac ctaaganggg taaagangtc 480
ataagattgt agtatgaaag antttgctta gttaaattat atctcaggaa actcattcat 540
ctacaaatta aattgtaaaa tgatggtttg ttgtatctga aaaaatgttt agaacaagaa 600
atgtaactgg gtacctgtta tatcaaagaa cctcnattta ttaagtctcc tcatagccan 660
atccttatat ngccctctct gacctgannt aatananact tgaataatga atagttaatt 720
taggnttggg c 731

```

```

<210> 47
<211> 640
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 5, 28, 106, 153, 158, 173, 176, 182, 189, 205, 210, 214,
225, 226, 229, 237, 260, 263, 269, 277, 281, 282, 322, 337,
338, 354, 365, 428, 441, 443, 456, 467, 476, 484, 503, 508,
554, 567, 575, 579, 588, 601, 606, 609, 611, 621, 636
<223> n = A,T,C or G

```

```

<400> 47
tgcgngccgg tttggccctt ctttgtanga cactttcatc cgccctgaaa tcttcccgat 60
cgtaataaac tctcaggtc cctgcctgca cagggttttt tcttantttg ttgcctaaca 120
gtacacaaaa tgtgacatcc tttcaccaat atngattnct tcataccaca tcntcnatgg 180
anacgactnc aacaattttt tgatnaccn aaanactggg ggctnnaana agtacantct 240
ggagcagcat ggacctgten gcnactaang gaacaanagt nntgaacatt tacacaacct 300
ttggtatgtc ttactgaaag anagaaacat gcttctnncc ctagaccacg aggncaaccg 360
caganattgc caatgccaag tccgagcggg tagatcaggt aatacattcc atggatgcat 420
tacatacnnt gtccccgaaa nanaagatgc cctaanggct tcttcanact ggccngaaa 480
acanctacac ctggtgcttg ganaacanac tctttggaag atcatctggc acaagttccc 540
cccagtgggt tttnccttgg cacctanctt accanatcna ttcggaancc attctttgcc 600
ntggcnttnt nttgggacca ntcttctcac aactgnacce 640

```

```

<210> 48
<211> 257
<212> DNA
<213> Homo sapiens

```

```

<400> 48
actagtatat gaaaatgtaa atatcacttg tgtactcaaa caaaagttag tcttaagctt 60
ccaccttgag cagccttgga aacctaacct gcctctttta gcataatcac attttctaaa 120
tgattttctt tgttcttgaa aaagtgattt gtattagttt tacattttgt ttttggaaga 180
ttatatattg atatgtatca tcataaaata tttaaataaa aagtatcttt agagtgaata 240
aaaaaaaaaa aaaaaaa 257

```

```

<210> 49

```

<211> 652
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 410, 428, 496, 571, 647
 <223> n = A,T,C or G

<400> 49
 actagttcag atgagtggtt gctgaagggg ccccttctgtc attttcatta taaccctaatt 60
 tccacttatt tgaactctta agtcataaat gtataatgac ttatgaatta gcacagttta 120
 gttgacacta gaaactgccc atttctgtat tacactatca aataggaaac attggaaaga 180
 tggggaaaaa aatcttattt taaaatggct tagaaagttt tcagattact ttgaaaattc 240
 taaacttctt tctgtttcca aaacttgaaa atatgtagat ggactcatgc attaagactg 300
 ttttcaaagc tttctcaca tttttaaagt gtgattttcc ttttaataata catatttatt 360
 ttctttaaag cagctatata ccaacccatg actttggaga tatacctatn aaaccaatat 420
 aacagcangt ttattgaagc agctttctca aatgttgctt cagatgtgca agttgcaaatt 480
 tttattgtat ttgtanaata caatttttgt tttaaactgt atttcaatct atttctccaa 540
 gatgcttttc atatagagtg aaatatccca ngataactgc ttctgtgtcg tcgcatttga 600
 cgcataactg cacaaatgaa cagtgtatac ctcttggttg tgcattnacc cc 652

<210> 50
 <211> 650
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 237, 270, 311, 443, 454, 488, 520, 535, 539, 556, 567, 594, 603, 634
 <223> n = A,T,C or G

<400> 50
 ttgcgctttg attttttttag ggcttgtgcc ctgtttcact tatagggctc agaatgcttg 60
 tgttgagtaa aaaggagatg cccaatatcc aaagctgcta aatgttctct ttgccataaa 120
 gactccgtgt aactgtgtga acacttgga tttttctcct ctgtcccgag gtcgtcgtct 180
 gctttctttt ttgggttctt tctagaagat tgagaaatgc atatgacagg ctgagancac 240
 ctcccaaac acacaagctc tcagccacan gcagcttctc cacagcccca gcttcgcaca 300
 ggctcctgga nggctgcctg ggggagggcag acatgggagt gccaggtgg ccagatggtt 360
 ccaggactac aatgtcttta tttttaactg tttgccactg ctgccctcac ccctgcccqg 420
 ctctggagta ccgtctgccc canacaagtg ggantgaaat gggggtgggg gggaacactg 480
 attcccantt aggggggtgcc taactgaaca gtagggatan aagggtgtgaa cctgngaant 540
 gctttttataa attatnttcc ttgttanatt ttttttttaa tttaatctct gttnaactgc 600
 ccngggaaaaa ggggaaaaaaa aaaaaaaaaa tctnttttaa cacatgaaca 650

<210> 51
 <211> 545
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 66, 159, 195, 205, 214, 243, 278, 298, 306, 337, 366, 375,

382, 405, 446, 477, 492, 495, 503, 507, 508, 521, 537

<223> n = A,T,C or G

<400> 51

```
tggcgtgcaa ccagggtagc tgaagtttgg gtctgggact ggagattggc cattaggcct 60
cctganattc cagctccctt ccaccaagcc cagtcttgct acgtggcaca gggcaaacct 120
gactcccttt gggcctcagt ttccctcccc cttcatgana tgaaaagaat actacttttt 180
cttgttggtc taacnttgct ggacncaaag tgtngtcatt attgttgtat tgggtgatgt 240
gtncaaaact gcagaagctc actgcctatg agaggaanta agagagatag tggatganag 300
ggacanaagg agtcattatt tggatatagat ccaccntcc caacctttct ctcctcagtc 360
cctgcncctc atgtntctgg tntggtgagt cctttgtgcc accanccatc atgctttgca 420
ttgctgccat cctgggaagg gggtnatcg tctcacaact tgttgatcgc gtttganatg 480
catgctttct tnatnaaaca aanaaanaa tgtttgacag ngtttaaaat aaaaaanaaa 540
caaaa
```

<210> 52

<211> 678

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 98, 119, 121, 131, 136, 139, 140, 142, 143, 163, 168, 172,
176, 184, 189, 190, 191, 200, 201, 205, 207, 221, 223, 229,
230, 237, 240, 241, 255, 264, 266, 267, 276, 280, 288, 289,
291, 297, 301, 306, 308, 314, 315, 326, 332, 335, 337

<223> n = A,T,C or G

<221> misc_feature

<222> 339, 341, 343, 344, 345, 347, 350, 355, 356, 358, 362, 363,
372, 379, 395, 397, 398, 400, 403, 412, 414, 421, 423, 431,
435, 438, 439, 450, 457, 463, 467, 471, 474, 480, 483, 484,
487, 490, 491, 492, 493, 499, 500, 504, 508, 518, 536

<223> n = A,T,C or G

<221> misc_feature

<222> 538, 549, 551, 552, 554, 556, 557, 562, 563, 567, 571, 572,
576, 579, 590, 592, 595, 598, 606, 609, 613, 620, 622, 624,
626, 631, 634, 638, 641, 647, 654, 660, 661, 674

<223> n = A,T,C or G

<400> 52

```
actagtagaa gaactttgcc gcttttgtgc ctctcacagg cgcctaaagt cattgccatg 60
ggaggaagac gatttggggg gggagggggg gggggcangg tccgtggggc ttccctant 120
ntatctccat ntcantggn cmtgtgcgc tcttccctcg tcnattnga anttantccc 180
tggncccnn nccctctcn nccnccct cccctcccg ncnccctcn cttttntan 240
ncttcccat ctcnctccc cctnanngtc ccaacnccg cagcaatnnc ncaactnctc 300
nctcncncc tccnccggt cttctnttct cnaentnnc ncnntnccn tgccnntnaa 360
annctctccc cnetgcaanc gattctctcc ctcnccnnan ctntccactc cntncttctc 420
nncgctcct ntntctnnc ccacctctc ccttcgnccc cantacnctc nccncccttn 480
cgnntcnttn nnntctcnn accnccncc tcccttnc cctcttctcc ccggtntntc 540
tctctccnc ncnccncc cncnccntc nngcgnccnt ttccgcccc cncnccntt 600
ccttctcnc cantccatc cntntnccat nctnccncc nctcacnccc gctnccccc 660
ntctcttca cacngtcc
```

<210> 53
 <211> 502
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 139, 146, 215, 217, 257, 263, 289, 386, 420, 452, 457, 461,
 466, 482, 486
 <223> n = A,T,C or G

<400> 53
 tgaagatcct ggtgtcgcca tgggcccgcg ccccgcccgt tgttaccggt attgtaagaa 60
 caagccgtac ccaaagtctc gcttctgccg aggtgtccct gatgccaaaa ttcgcathtt 120
 tgacctgggg cggaaaaaang caaaantgga tgagtctccg ctttgtggcc acatgggtgc 180
 agatcaatat gagcagctgt cctctgaagc cctgnangct gcccgaaatt gtgccaataa 240
 gtacatggta aaaagtngtg gcnaagatgc ttccatatcc ggggtgcgnt ccaccccttc 300
 cacgtcatcc gcatcaacaa gatgttgtcc tgtgctgggg ctgacaggct cccaacaggc 360
 atgcgaagtg cctttggaaa acccanggca ctgtggccag ggttcacatt gggccaattn 420
 atcatgttca tccgcaccaa ctgcagaaca angaantgt naattnaagc cctgcccagg 480
 gncaanttca aatttcccgg cc 502

<210> 54
 <211> 494
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 431, 442, 445
 <223> n = A,T,C or G

<400> 54
 actagtccaa gaaaaatatg cttaatgtat attacaaagg ctttgtatat gttaacctgt 60
 tttaatgcca aaagtttgct ttgtccacaa tttccttaag acctcttcag aaagggattt 120
 gtttgcccta atgaatactg ttgggaaaaa acacagtata atgagtgaag agggcagaag 180
 caagaaattt ctacatctta gcgactccaa gaagaatgag tatccacatt tagatggcac 240
 attatgagga ctttaattctt tccttaaaca caataatgtt ttcttttttc ttttattcac 300
 atgattttcta agtatatttt tcatgcagga cagtttttca accttgatgt acagtgactg 360
 tgttaaatgtt ttcttttcagt ggcaacctct ataattctta aaatatgggt agcatcttgt 420
 ctgttttgaa ngggatatga cnatnaatct atcagatggg aaatcctgtt tccaagtttag 480
 aaaaaaaaaa aaaa 494

<210> 55
 <211> 606
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 375, 395, 511, 542, 559, 569, 578, 581
 <223> n = A,T,C or G

<400> 55

```

actagtaaaa agcagcattg ccaaataatc cctaattttc cactaaaaat ataatgaaat 60
gatgttaagc tttttgaaaa gtttaggtta aacctactgt tgtagatta atgtatttgt 120
tgcttccctt tatctggaat gtggcattag cttttttatt ttaaccctct ttaattctta 180
ttcaattcca tgacttaagg ttggagagct aaacactggg atttttggat aacagactga 240
cagttttgca taattataat cggcattgta catagaaagg atatggctac cttttgttaa 300
atctgcactt tctaaatatc aaaaaagggg aatgaagtat aaatcaattt ttgtataatc 360
tgtttgaaac atgantttta ttgcttaat attanggctt tgcccttttc tgtagtctc 420
ttgggatcct gtgtaaaact gttctcatta aacaccaaac agttaagtcc attctctggg 480
actagctaca aattccggtt catattctac ntaacaattt aaattaactg aaatatttct 540
anatggtcta cttctgtcnt ataaaaacna aacttgantt nccaaaaaaa aaaaaaaaaa 600
aaaaaa                                           606

```

<210> 56

<211> 183

<212> DNA

<213> Homo sapiens

<400> 56

```

actagtatat ttaaaacttac aggottatth gtaatgtaaa ccaccatttt aatgtactgt 60
aattaacatg gttataatac gtacaatcct tccctcatcc catcacacaa ctttttttgt 120
gtgtgataaa ctgatttttg ttgcaataa aaccttgaaa aataaaaaaa aaaaaaaaaa 180
aaa                                           183

```

<210> 57

<211> 622

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 358, 368, 412, 414, 425, 430, 453, 455, 469, 475, 495, 499, 529, 540, 564, 575, 590

<223> n = A,T,C or G

<400> 57

```

actagtcact actgtcttct ccttgtagct aatcaatcaa tattcttccc ttgcctgtgg 60
gcagtggaga gtgctgctgg gtgtacgctg cacctgccca ctgagttggg gaaagaggat 120
aatcagtgag cactgttctg ctgagagctc ctgatctacc ccacccccta ggatccagga 180
ctgggtcaaa gctgcatgaa accaggccct ggcagcaacc tgggaatggc tggaggtggg 240
agagaacctg acttctcttt cctctccct cctccaacat tactggaact ctatcctgtt 300
agggatcttc tgagcttggt tccctgctgg gtgggacaga agacaaagga gaagggangg 360
tctacaanaa gcagcccttc ttgtcctct ggggttaatg agcttgacct ananttcagt 420
gaganaccan aagcctctga tttttaattt cntnaaatg tttgaagtnt atatntacat 480
atatatatth ctttnaatnt ttgagtcctt gatatgtctt aaaatccant cctctgccn 540
gaaacctgaa ttaaaaccat gaanaaaat gtttncctta aagatgttan taattaattg 600
aaacttgaaa aaaaaaaaaa aa                                           622

```

<210> 58

<211> 433

<212> DNA

<213> Homo sapiens

<400> 58

```

gaacaaattc tgattggtta tgtaccgtca aaagacttga agaaatttca tgattttgca 60
gtgtggaagc gttgaaaaatt gaaagttact gcttttccac ttgctcatat agtaaaggga 120
tcctttcagc tgccagtgtt gaataatgta tcatccagag tgatgttatc tgtgacagtc 180
accagcttta agctgaacca ttttatgaat accaaataaa tagacctctt gtactgaaaa 240
catatttgtg actttaatcg tgcgtgcttg atagaaatat ttttactggg tcttctgaat 300
tgacagtaaa cctgtccatt atgaatggcc tactgttcta ttatttggtt tgacttgaat 360
ttatccacca aagacttcat ttgtgtatca tcaataaagt tgtatgtttc aactgaaaaa 420
aaaaaaaaaa aaa 433

```

```

<210> 59
<211> 649
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 22, 190, 217, 430, 433, 484, 544, 550, 577, 583, 594
<223> n = A,T,C or G

```

```

<400> 59
actagtattt atctgacttt cngggtataa tcattctaata gagtgtgaag tagcctctgg 60
tgtcatttgg atttgcattt ctctgatgag tgatgctatc aagcaccttt gctggtgctg 120
ttggccatat gtgtatgttc cctggagaag tgtctgtgct gaggccttggc ccacttttta 180
attaggcgtn tgtcttttta ttactgagtt gtaaganttc tttatatatt ctggattcta 240
gacccttatc agatacatgg ttgcaaata ttttctccca ttctgtgggt tgtgttttca 300
ctttatcgat aatgtcctta gacatataat aaatttgtat tttaaaagtg acttgatttg 360
ggctgtgcaa ggtggggtca cgcttgtaat ccagcactt tgggagactg aggtgggtgg 420
atcatatgan gangctagga gtctgaggtc agcctggcca gcatagcgaa aacttgtctc 480
tacnaaaaat acaaaaatta gtcaggcatg gtggtgcacg tctgtaatac cagcttctca 540
ggangctgan gcacaaggat cacttgaacc ccagaangaa gangttgcag tganctgaag 600
atcatgccag ggcaacaaaa atgagaactt gtttaaaaaa aaaaaaaaaa 649

```

```

<210> 60
<211> 423
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 209, 222, 277, 389, 398
<223> n = A,T,C or G

```

```

<400> 60
actagttcag gccttccagt tcaactgacaa acatggggaa gtgtgcccag ctggctggaa 60
acctggcagt gataccatca agcctgatgt ccaaaagagc aaagaatatt tctccaagca 120
gaagtgagcg ctgggctgtt ttagtgccag gctgcggtgg gcagccatga gaacaaaacc 180
tcttctgtat ttttttttcc cattagtana acacaagact cngattcagc cgaattgtgg 240
tgtcttacaa ggcagggtct tcttacaggg ggtgganaaa acagcctttc ttcctttggg 300
aggaatggcc tgagttggcg ttgtgggcag gctactggtt tgtatgatgt attagtagag 360
caaccatta atcttttgta gtttgtatna aacttgantc gagaccttaa acaaaaaaaaa 420
aaa 423

```

```

<210> 61
<211> 423

```

<212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 195, 285, 295, 329, 335, 340, 347, 367, 382, 383, 391, 396,
 418
 <223> n = A,T,C or G

<400> 61
 cgggactgga atgtaaagtg aagttcggag ctctgagcac gggctcttcc cgccgggtcc 60
 tccctcccca gaccccagag ggagaggccc accccgccc gccccgcccc agcccctgct 120
 caggtctgag tatggctggg agtcgggggc cacaggcctc tagctgtgct gctcaagaag 180
 actggatcag ggtanctaca agtggccggg ccttgccctt gggattctac cctgttccta 240
 atttgggtgt ggggtgcggg gtccctggcc cccttttcca cactncctcc ctcngacag 300
 caacctccct tggggcaatt gggcctggnt ctcncccggn tggtgcnacc ctttgttggt 360
 ttaaggncct taaaaatggt annttttccc ntgcncgggt taaaaaagga aaaaactnaa 420
 aaa 423

<210> 62
 <211> 683
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 218, 291, 305, 411, 416, 441, 443, 453, 522, 523, 536, 542,
 547, 566, 588, 592, 595, 603, 621, 628, 630, 632, 644, 645,
 648, 655, 660, 672, 674, 676, 677, 683
 <223> n = A,T,C or G

<400> 62
 gctggagagg ggtacggact ttcttgaggt tgtcccaggt tggaatgaga ctgaactcaa 60
 gaagagaccc taagagactg gggaatggtt cctgccttca ggaaagtga agacgccttag 120
 gctgtcaaca cttaaaggaa gtccccttga agcccagagt ggacagacta gacccattga 180
 tggggccact ggccatggtc cgtggacaag acattccngt gggccatggc acaccggggg 240
 ggatcaaaaat gtgtacttgt ggggtctcgc cccttgccaa aaccaaacca ntcccactcc 300
 tgtcnttgga ctttcttccc attccctcct ccccaaattgc acttcccctc ctccctctgc 360
 ccctcctgtg tttttggaat tctgtttccc tcaaaattgt taatttttta nttttngacc 420
 atgaacttat gtttggggtc nangttcccc ttnccaatgc atactaatat attaatgggt 480
 atttattttt gaaatatatt ttaatgaact tggaaaaaat tnntggaatt tccttntctc 540
 cntttntttt ggggggggtg ggggntggg ttaaaatttt tttggaancc cnatnggaaa 600
 ttnttacttg gggccccctt naaaaaantn anttccaatt cttnnatngc ccctnttccn 660
 ctaaaaaaaaa ananannaaa aan 683

<210> 63
 <211> 731
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 237, 249, 263, 288, 312, 317, 323, 326, 337, 352, 362, 370,
 377, 400, 411, 414, 434, 436, 446, 457, 473, 486, 497, 498,

502, 512, 531, 546, 554, 563, 565, 566, 588, 597, 608, 611,
613, 615, 627, 632, 640, 641, 644, 654, 660, 663, 665

<223> n = A,T,C or G

<221> misc_feature

<222> 671, 678, 692, 697, 698, 699, 704, 705, 712, 714, 717, 718,
719, 723, 725, 730, 731

<223> n = A,T,C or G

<400> 63

```
actagtcata aaggggtgtgc gcgtcttcga cgtggcggtc ttggcgccac tgctgcgaga 60
cccggccctg gacctcaagg tcatccactt ggtgcgtgat ccccgcgcgg tggcgagttc 120
acggatccgc tcgcgccacg gcctcatccg tgagagccta caggtggtgc gcagccgaga 180
ccgcgagctc accgcatgcc cttcttggag gccgcggggc acaagcttgg cgcccaaaa 240
gaaggcgtng ggggcccgc aantaccacg ctctgggcgc tatggaangt cctcttgcaa 300
taatattggt tnaaaaanctg canaanagcc cctgcancgc cctgaactgg gntgcagggc 360
cncttacctn gtttggnctg gggtacaaag aacctgtttn ggaaaaccct nccnaaaacc 420
ttccgggaaa attntncaaa ttttntttgg ggaattnttg ggtaaaccct ccnaaaatgg 480
gaaacntttt tgccctnnaa antaaacat tnggttccgg gggccccccc ncaaaaccct 540
ttttntttt tttntgcccc cantnncccc ccggggcccc ttttttngg ggaaaanccc 600
ccccctncc nanantttta aaagggnggg anaatttttn nttnccccc gggncccccn 660
ggngntaaaa nggtttcncc ccccgagggg gnggggnnnc ctcnnaaacc cntntcnna 720
cncnttttn n 731
```

<210> 64

<211> 313

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 240

<223> n = A,T,C or G

<400> 64

```
actagtgttg caaaccacga ctgaagaaag acgaaaagtg ggaaataact tgcaacgtct 60
gttagagatg gttgctacac atgttggtgc tgtagagaaa catcttgagg agcagattgc 120
taaagttgat agagaatatg aagaatgcat gtcagaagat ctctcgaaa atattaaaga 180
gattagagat aagtatgaga agaaagctac tctaattaag tcttctgaag aatgaagatn 240
aaatgttgat catgtatata tatccatagt gaataaaatt gtctcagtaa agttgtaaaa 300
aaaaaaaaaa aaa 313
```

<210> 65

<211> 420

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 400, 402, 403, 404, 405, 406, 409, 411, 412, 414, 415, 416

<223> n = A,T,C or G

<400> 65

```
actagttccc tggcaggcaa gggcttccaa ctgaggcagt gcatgtgtgg cagagagagg 60
```



```

caggaagctg gcagtggcag cttctgtgtc tagggagggg tgtggctccc tccttccctg 120
tctgggaggt tggagggaag aatctaggcc ttagcttgcc ctctgccac cttccctt 180
gtagatactg ccttaacact cctcctctc tcagctgtgg ctgccacca agccaggttt 240
ctccgtgtc actaatttat ttccaggaaa ggtgtgtgga agacatgagc cgtgtataat 300
atttgtttta acattttcat tgcaagtatt gaccatcatc cttggttgtg tatcgttgta 360
acacaaatta atgatattaa aaagcatcca aacaaagccn annnnnaana nnannngaaa 420

```

```

<210> 66
<211> 676
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 328, 454, 505, 555, 586, 612, 636, 641
<223> n = A,T,C or G

```

```

<400> 66
actagtttcc tatgatcatt aaactcattc tcagggttaa gaaaggaatg taaatttctg 60
cctcaatttg tacttcatca ataagttttt gaagagtgcg gatttttagt caggtcttaa 120
aaataaaactc acaaactctgg atgcatttct aaattctgca aatgtttcct ggggtgactt 180
aacaaggaat aatcccacaa tatacctagc tacctaatac atggagctgg ggctcaacc 240
actgttttta aggatttgcg cttacttgtg gctgaggaaa aataagtagt tccgagggaa 300
gtagttttta aatgtgagct tatagatngg aaacagaata tcaacttaat tatggaaatt 360
gttagaaacc tgttctcttg ttatctgaat cttgattgca attactattg tactggatag 420
actccagccc attgcaaagt ctccagatct ttanctgtgt agttgaattc cttggaaatt 480
ctttttaaga aaaaattgga gtttnaaaga aataaacccc tttgttaaatt gaagcttggc 540
tttttggtga aaaanaatca tcccgcaggg cttattgttt aaaaanggaa ttttaagcct 600
ccctggaaaa anttgttaat taaatgggga aaatgntggg naaaaattat ccgttagggg 660
ttaaagggaa aactta
676

```

```

<210> 67
<211> 620
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 419, 493, 519, 568, 605, 610
<223> n = A,T,C or G

```

```

<400> 67
caccattaaa gctgcttacc aagaacttcc ccagcatttt gacttccttg tttgatagct 60
gaattgtgag caggtgatag aagagccttt ctagtgaac atacagataa tttgctgaat 120
acattccatt taatgaagg gttacatctg ttacgaagct actaagaagg agcaagagca 180
taggggaaaa aaatctgac agaacgcac aaactcacat gtgccccctc tactacaaac 240
agattgtagt gctgtgggtg tttattccgt tgtgcagaac ttgcaagctg agtcactaaa 300
cccaaagaga ggaaattata ggtagtttaa acattgtaat ccagggaact aagtttaatt 360
cacttttgaa gtgttttgtt ttttattttt ggtttgtctg atttactttg ggggaaaang 420
ctaaaaaaaa agggatatca atctctaatt cagtgccac taaaagttgt ccctaaaaag 480
tctttactgg aanttatggg actttttaag ctccaggtnt tttggtcctc caaattaacc 540
ttgcatgggc cccttaaaat tggtgaangg cattcctgcc tctaagtttg gggaaaattc 600
cccnttttn aaaaattgga
620

```

<210> 68
 <211> 551
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 286, 464, 480, 501, 502, 518, 528, 533, 536, 537, 538, 539,
 540, 541, 543, 544, 545, 547, 548, 549
 <223> n = A,T,C or G

<400> 68
 actagtagct ggtacataat cactgaggag ctatttctta acatgctttt atagaccatg 60
 ctaatgctag accagtattt aagggtctaat ctacacacct cttagctgta agagtctggc 120
 ttagaacaga cctctctgtg caataacttg tggccactgg aaatccctgg gccggcattt 180
 gtattggggg tgcaatgact cccaaggggc aaaagagtta aaggcacgac tgggatttct 240
 tctgagactg tggtgaaact ccttccaagg ctgagggggg cagtangtgc tctgggaggg 300
 actcggcacc actttgatat tcaacaagcc acttgaagcc caattataaa attgttattt 360
 tacagctgat ggaactcaat ttgaaccttc aaaactttgt tagtttatcc tattatattg 420
 ttaaaccctaa ttacatttgt ctgacattgg atttggttcc tgtngcatat gtttttttcn 480
 cctatgtgct cccctcccc nnatcttaat ttaaaccnca attttgcnat tcnccnnnnn 540
 nannannna a 551

<210> 69
 <211> 396
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 235, 310, 323, 381
 <223> n = A,T,C or G

<400> 69
 cagaaatgga aagcagagtt ttcatttctg tttataaacg tctccaaaca aaaatggaaa 60
 gcagagtttt cattaaatcc ttttaccttt ttttttctt ggtaatcccc tcaaataaca 120
 gtatgtggga tattgaatgt taaagggata ttttttctta ttatttttat aattgtacaa 180
 aattaagcaa atgtttaaag ttttatatgc tttattaatg ttttcaaaag gtatnatata 240
 tgtgatacat tttttaagct tcagttgctt gtcttctggt actttctggt atgggctttt 300
 ggggagccan aaaccaatct acnatctctt tttgtttgcc aggacatgca ataaaattta 360
 aaaaataaat aaaaactatt nagaaattga aaaaaa 396

<210> 70
 <211> 536
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 388, 446, 455
 <223> n = A,T,C or G

<400> 70

```

actagtgcaa aagcaaatat aaacatcgaa aaggcggttcc tcacgtttagc tgaagatatc 60
cttcgaaaaga cccctgtataa agagcccaaac agtgaaaatg tagatatcag cagtggagga 120
ggcgtgacag gctggaagag caaatgctgc tgagcattct cctgttccat cagttgccat 180
ccactacccc gttttctctt cttgctgcaa aataaaccac tctgtccatt tttaactcta 240
aacagatatt tttgtttctc atcttaacta tccaagccac ctattttatt tgttctttca 300
tctgtgactg cttgctgact ttatcataat tttcttcaaa caaaaaaatg tatagaaaaa 360
tcatgtctgt gacttcattt ttaaattgnta cttgctcagc tcaactgcat ttcagttgtt 420
ttatagtcca gttcttatca acattnaaac ctatngcaat catttcaaat ctattctgca 480
aattgtataa gaataaaaagt tagaatttaa caattaaaaa aaaaaaaaaa aaaaaa 536

```

```

<210> 71
<211> 865
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 22, 35, 39, 56, 131, 138, 146, 183, 194, 197, 238, 269, 277,
282, 297, 316, 331, 336, 340, 341, 346, 349, 370, 376, 381,
382, 392, 396, 397, 401, 433, 444, 445, 454, 455, 469, 472,
477, 480, 482, 489, 497, 499, 511, 522, 526, 527
<223> n = A,T,C or G

```

```

<221> misc_feature
<222> 545, 553, 556, 567, 574, 580, 610, 613, 634, 638, 639, 663,
672, 689, 693, 694, 701, 704, 713, 723, 729, 732, 743, 744,
749, 761, 765, 767, 769, 772, 774, 780, 783, 788, 792, 803,
810, 824, 840, 848
<223> n = A,T,C or G

```

```

<400> 71
gacaaagcgt taggagaaga anagaggcag ggaanactnc ccaggcacga tggccncctt 60
cccaccagca accagcgccc cccaccagcc cccaggcccg gacgacgaag actccatcct 120
ggattaatct nacctctntc gcctgnccca ttcctacctc ggaggtggag gccggaaagg 180
tcncaccaag aganaanctg ctgccaaacac caaccgcccc agccctggcg ggcacganag 240
gaaactggtg accaatctgc agaattctna gaggaanaag cnaggggccc cgcgctnaga 300
cagagctgga tatgangcca gaccatggac nctacnccn ncaatncana cgggactgcg 360
gaagatggan gaccncgac nngatcaggc cngetnncca nccccccacc cctatgaatt 420
attcccgcgt aangaatctc tgannggctt ccannaaagc gcctccccnc cnaacgnaan 480
tncaacatng ggattanang ctgggaactg naaggggcaa ancctnnaat atccccagaa 540
acaanctctc ccnaanaaac tggggcncct catnggtqgn accaactatt aactaaaccg 600
cacgccaaan aantataaaa ggggggcccc tcnccggnng accccctttt gtcccttaat 660
ganggttatc cnccttgctg accatggtnc ccnnttctgt ntgnatgttt ccnctcccct 720
ccnctatnt cnagccgaac tcnnatttnc cggggggtgc nactnantng tncncctttn 780
ttngttgncc cngccctttc cgnccggaacn cgtttccccg ttantaacgg caccgggggn 840
aagggtgntt ggccccctcc ctccc 865

```

```

<210> 72
<211> 560
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature

```

<222> 83, 173, 183, 186, 209, 211, 215, 255, 321, 322, 323, 335,
344, 357, 361, 368, 394, 412, 415, 442, 455, 469, 472, 475,
487, 513, 522, 528, 531, 534, 546

<223> n = A,T,C or G

<400> 72

```
cctggacttg tcttggttcc agaacctgac gacccggcga cggcgacgtc tcttttgact 60
aaaagacagt gtccagtgtc ccngcctagg agtctacggg gaccgcctcc cgcgccgcca 120
ccatgcccaa cttctctggc aactggaaaa tcatccgata ggaaaacttc gangaattgc 180
tcnaantgct ggggggtgaat gtgatgctna ngaanattgc tgtggctgca gcgtccaagc 240
cagcagtgga gatcnaacag gagggagaca cttttctacat caaaacctcc accaccgtgc 300
gcaccacaaa gattaacttc nnngttgggg aggantttga ggancaaaact gtggatngga 360
ngcctgtnaa aacctggtga aatgggagaa tganaataaa atggtctgtg ancanaaact 420
cctgaaagga gaaggccccc anaactcctg gacngaaaa actgaccnc cnatngggga 480
actgatnctt gaacctgaa cgggcgggat ganccttttt tnttgcncnc naanggggtc 540
tttcnntttc cccaaaaaaa
```

<210> 73

<211> 379

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> 8, 17, 18, 21, 26, 29, 30, 32, 53, 56, 67, 71, 81, 102, 104,
111, 112, 114, 119, 122, 124, 125, 134, 144, 146, 189, 190,
214, 215, 219, 220, 235, 237, 246, 280, 288, 302, 310, 313,
319, 322, 343, 353, 354

<223> n = A,T,C or G

<400> 73

```
ctggggancc ggcggtnngc nccatntcnn gncgcgaagg tggcaataaa aancnctga 60
aaccgcncaa naacatgcc naagatatgg acgaggaaga tngngctttc nngnacaanc 120
gnanngagga acanaacaaa ctcnangagc tctcaagcta atgccgcggg gaaggggccc 180
ttggccacnn gtggaattaa gaaatctggc aaanngtann tgttccttgt gcctnangag 240
ataagngacc ctttatttca tctgtattta aacctctctn ttccctgnca taacttcttt 300
tnccacgtan agntggaant anttgttggtc ttggactggt gtncatttta gannaaactt 360
ttgttcaaaa aaaaaataa
```

<210> 74

<211> 437

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> 145, 355

<223> n = A,T,C or G

<400> 74

```
actagtctcag actgccacgc caaccccaga aaatacccca catgccagaa aagtgaagtc 60
ctaggtgttt ccatctatgt ttcaatctgt ccatctacca ggcctcgca taaaaacaaa 120
acaaaaaac gctgccagg tttanaagca gttctggtct caaaaccatc aggatcctgc 180
caccagggtt cttttgaaat agtaccacat gtaaaaggga atttggcttt cacttcatct 240
```

```

aatcactgaa ttgtcaggct ttgattgata attgtagaaa taagtagcct tctgttgtgg 300
gaataagtta taatcagtat tcatctcttt gttttttgtc actcttttct ctctnattgt 360
gtcatttgta ctgtttgaaa aatatttctt ctataaaatt aaactaacct gccttaaaaa 420
aaaaaaaaaa aaaaaaaa 437

```

```

<210> 75
<211> 579
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 440, 513, 539, 551
<223> n = A,T,C or G

```

```

<400> 75
ctccgtcgcc gccaaagatga tgtgcggggc gccctccgcc acgcagccgg ccaccgccga 60
gaccagcac atcgccgacc aggtgaggct ccagcttgaa gagaaagaaa acaagaagtt 120
ccctgtgttt aaggcogtgt cattcaagag ccagggtgtc gcggggacaa actacttcat 180
caagggtcac gtgcggcgacg aggacttcgt acacctgcga gtgttccaat ctctccctca 240
tgaaaacaag cccttgacct tatctaacta ccagaccaac aaagccaagc atgatgagct 300
gacctatttc tgatcctgac ttgggacaag gcccttcagc cagaagactg acaaagtcac 360
cctccgtcta ccagagcgtg cacttgtgat cctaaaataa gcttcatctc cgggctgtgc 420
ccttgggggtg gaaggggcan gatctgcact gcttttgcac ttctcttctt aaatttcatt 480
gtgttgattc tttccttcca ataggtgatc ttnattactt tcagaatatt ttccaaatna 540
gatatatattt naaaatcctt aaaaaaaaaa aaaaaaaaaa 579

```

```

<210> 76
<211> 666
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 411, 470, 476, 491, 506, 527, 560, 570, 632, 636, 643, 650,
654, 658
<223> n = A,T,C or G

```

```

<400> 76
gtttatccta tctctccaac cagattgtca gctccttgag ggcaagagcc acagtatatt 60
tccctgtttc ttccacagtg cctaataata ctgtggaact aggttttaac aattttttaa 120
ttgatgttgt tatgggcagg atggcaacca gaccattgtc tcagagcagg tgctggctct 180
ttcctggcta ctccatgttg gctagcctct ggtaacctct tacttattat cttcaggaca 240
ctcactacag ggaccaggga tgatgcaaca tccttgtctt tttatgacag gatgtttgct 300
cagcttctcc aacaataaaa agcacgtggt aaaacacttg cggatattct ggactgtttt 360
taaaaaatat acagtttacc gaaaatcata ttatcttaca atgaaaagga ntttatagat 420
cagccagtga acaacctttt ccaccatac aaaaattcct tttcccgaan gaaaanggct 480
ttctcaataa ncctcacttt cttaanatct tacaagatag ccccganac ttatcgaaac 540
tcattttagg caaatatgan ttttattgtc cgttacttgt ttcaaaattt ggtattgtga 600
atatcaatta ccaccccat ctcccatgaa anaaanggga aanggtgaan ttcntaancg 660
cttaaa 666

```

```

<210> 77
<211> 396

```

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 31, 54, 125, 128, 136, 163, 168, 198
<223> n = A,T,C or G

<400> 77
ctgcagcccg ggggatccac taatctacca ngggttatttg gcagctaatt ctanatttgg 60
atcattgccc aaagttgcac ttgctggtct cttgggattt ggccttgga aggtatcata 120
catanganta tgccanaata aattccattt ttttgaaaat canctccntg gggctgggtt 180
tggtccacag cataacangc actgcctcct tacctgtgag gaatgcaaaa taaagcatgg 240
attaagtgag aaggggagact ctcagccttc agcttcctaa attctgtgtc tgtgactttc 300
gaagtttttt aaacctctga atttgtacac attttaaatt tcaagtgtac tttaaaataa 360
aatacttcta atgggaacaa aaaaaaaaaa aaaaaa 396

<210> 78
<211> 793
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 309, 492, 563, 657, 660, 703, 708, 710, 711, 732, 740, 748,
758, 762, 765, 787
<223> n = A,T,C or G

<400> 78
gcctcctagc cgccgactca cacaaggcag gtgggtgagg aaatccagag ttgccatgga 60
gaaaattcca gtgtcagcat tcttgctcct tgtggccctc tcctacactc tggccagaga 120
taccacagtc aaacctggag ccaaaaagga cacaaggac tctcgacca aactgccccca 180
gacctcttcc agagggttggg gtgaccaact catctggact cagacatatg aagaagctct 240
atataaatcc aagacaagca acaaacctt gatgattatt catcacttgg atgagtggcc 300
acacagtana gctttaaaga aagtgtttgc tgaaaataaa gaaatccaga aattggcaga 360
gcagtttgtc ctctcaatc tggtttatga aacaactgac aaacaccttt ctctgatgg 420
ccagtatgtc ccaggattat gtttgttgac ccattcttga cagttgaagc cgatatcctg 480
ggaagatatt cnaaccgtct ctatgcttac aaactgcaga tacgctctgt tgcttgacac 540
atgaaaaagc totcaagttg ctnaaaatga attgtaagaa aaaaaatctc cagccttctg 600
tctgtcggct tgaaaattga aaccagaaaa atgtgaaaaa tggctattgt ggaacanatn 660
gacacctgat taggttttgg ttatgttcac cactattttt aanaaaanan nttttaaaat 720
ttggttcaat tntctttttt aaacaatntg tttctacntt gnganctgat ttctaaaaaa 780
aataatnttt ggc 793

<210> 79
<211> 456
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 89, 195, 255, 263, 266, 286, 353, 384, 423, 425, 436, 441
<223> n = A,T,C or G

```

<400> 79
actagtatgg ggtgggaggg cccacccttc tcccctaggg gctgttcttg ctccaaaggg 60
ctcogtggag agggactggc agagctgang ccacctgggg ctggggatcc cactcttctt 120
gcagctgttg agcgcaccta accactggtc atgccccac cctgctctc cgcacccgct 180
tcctcccgac cccangacca ggctacttct cccctcctct tgccctcctc ctgcccctgc 240
tgctctgat cgtangaatt gangantgtc ccgccttgtg gctganaatg gacagtggca 300
ggggctggaa atgggtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gcnccccccc 360
tgcaagaccg agattgaggg aaancatgtc tgctgggtgt gaccatgttt cctctccata 420
aantnccct gtgacnctca naaaaaaaa aaaaaa 456

```

```

<210> 80
<211> 284
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 283
<223> n = A,T,C or G

```

```

<400> 80
ctttgtacct ctagaaaaga taggtattgt gtcataaaac ttgagtttaa attttatata 60
taaaactaaa agtaatgctc acttttagcaa cacatactaa aattggaacc atactgagaa 120
gaatagcatg acctccgtgc aaacaggaca agcaaatitg tgatgtgttg attaaaaaga 180
aataaataaaa tgtgtatatg tgtaacttgt atgtttiatgt ggaatacaga ttgggaaata 240
aatgtatatt cttactgtga aaaaaaaaa aaaaaaaaa aana 284

```

```

<210> 81
<211> 671
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 388, 505, 600, 603, 615, 642, 644, 660
<223> n = A,T,C or G

```

```

<400> 81
gccaccaaca ttccaagcta ccctgggtac ctttgtgcag tagaagctag tgagcatgtg 60
agcaagcggg gtgcacacgg agactcatcg ttataattta ctatctgcca agagtagaaa 120
gaaaggctgg ggatatttgg gttgqcttgg ttttgatttt ttgcttgttt gtttgttttg 180
tactaaaaca gtattatctt ttgaatatcg tagggacata agtatataca tgttatccaa 240
tcaagatggc tagaatgggt cctttctgag tgtctaaaaac ttgacacccc tggtaaatct 300
ttcaacacac ttccactgcc tgcgtaatga agttttgatt catttttaac cactggaatt 360
tttcaatgcc gtcattttca gttagatnat tttgcacttt gagattaaaa tgccatgtct 420
atttgattag tcttattttt ttatttttac aggcattatca gtctcactgt tggctgtcat 480
tgtgacaaaag tcaaataaac cccnaggac aacacacagt atgggatcac atattgtttg 540
acattaagct ttggccaaaa aatgttgcac gtgttttacc tcgacttgct aaatcaatan 600
canaaaggct ggctnataat gttggtgggt aaataattaa tnantaacca aaaaaaaaaa 660
aaaaaaaaaa a 671

```

```

<210> 82
<211> 217
<212> DNA

```

<213> Homo sapiens

<220>

<221> misc_feature

<222> 35

<223> n = A,T,C or G

<400> 82

```
ctgcagatgt ttcttgaatg ctttgtcaaa ttaanaaagt taaagtgcaa taatgtttga 60
agacaataag tgggtggtgta tcttgtttct aataagataa acttttttgt ctttgcttta 120
tcttattagg gagttgtatg tcagtgtata aaacatactg tgtggtataa caggcttaat 180
aaattcttta aaaggaaaaa aaaaaaaaaa aaaaaaa 217
```

<210> 83

<211> 460

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 104, 118, 172, 401, 422, 423, 444, 449

<223> n = A,T,C or G

<400> 83

```
cgcgagtggg agcaccagga tctcgggctc ggaacgagac tgcacggatt gttttaagaa 60
aatggcagac aaaccagaca tgggggaaat cgccagcttc gatnaggcca agctgaanaa 120
aacggagacy caggagaaga acaccctgcc gaccaaagag accattgagc angagaagcg 180
gagtgaattt tcctaagatc ctggaggatt tcttaccctc gtcctcttcg agaccccagt 240
cgtgatgtgg aggaagagcc acctgcaaga tggacacgag ccacaagctg cactgtgaac 300
ctgggcactc cgcgcgatg ccaccggcct gtgggtctct gaagggaccc cccccaatcg 360
gactgccaaa ttctccggtt tgccccggga tattatacaa nattatttgt atgaataatg 420
annataaaac acaccctcgtg gcancaana aaaaaaaaaa 460
```

<210> 84

<211> 323

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 70, 138, 178, 197, 228, 242, 244, 287, 311

<223> n = A,T,C or G

<400> 84

```
tgggtgatct tggctctgtg gagctgctgg gacgggatct aaaagactat tctggaagct 60
gtggtccaan gcattttgct ggcttaacgg gtcccgaac aaaggacacc agctctctaa 120
aattgaagtt taccoganat aacaatcttt tgggcagaga tgcctatatt aacaaacncc 180
gtccctgcgc aacaacnaac aatctctggg aaataccggc catgaacntg ctgtctcaat 240
cnancatctc tctagctgac cgatcatatc gtcccgatt actacanatc ataataattg 300
atttcctgta naaaaaaaaa aaa 323
```

<210> 85

<211> 771

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 63, 426, 471, 497, 521, 554, 583, 586, 606, 609, 615, 652,
686, 691, 694, 695, 706, 713, 730, 732, 743, 751

<223> n = A,T,C or G

<400> 85

```
aaactgggta ctcaacactg agcagatctg ttctttgagc taaaaacat gtgctgtacc 60
aanagtttgc tcctggctgc tttgatgtca gtgctgttac tccacctctg cggcgaatca 120
gaagcaagca actttgactg ctgtcttgga tacacagacc gtattcttca tcctaaattt 180
attgtgggct tcacacggca gctggccaat gaaggctgtg acatcaatgc tatcatcttt 240
cacacaaaga aaaagtgtgc tgtgtgcgca aatccaaaac agacttgggt gaaatatatt 300
gtgctgtctc tcagtaaaaa agtcaagaac atgtaaaaac tgtggctttt ctggaatgga 360
attggacata gcccaagaac agaaagaact tgctgggggt ggaggtttca cttgcacatc 420
atgganggtt tagtgcttat cttatttgtg cctcctggac ttgtccaatt natgaagtta 480
atcatattgc atcatanttt gctttgttta acatcacatt naaattaaac tgtattttat 540
gttattttata gctntaggtt ttctgtgttt aactttttat acnaantttc ctaaaactatt 600
ttggtntant gcaanttaaa aatttatattt ggggggggaa taaatattgg antttctgca 660
gccacaagct ttttttaaaa aaccantaca nccnngtta atggtnggtc ccnaatgggt 720
tttgcttttn antagaaaat ttnttagaac natttgaaaa aaaaaaaaaa a 771
```

<210> 86

<211> 628

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 162, 249, 266, 348, 407, 427, 488, 518, 545, 566, 569, 597,
598, 611, 617, 621, 624

<223> n = A,T,C or G

<400> 86

```
actagtttgc tttacatttt tgaaaagtat tatttttgtc caagtgttta tcaactaaac 60
cttgtgttag gtaagaatgg aattttattaa gtgaatcagt gtgacccttc ttgtcataag 120
attatcttaa agctgaagcc aaaatatgct tcaaaagaaa angactttat tgttcattgt 180
agttcatata ttcaaagcat ctgaactgta gtttctatag caagccaatt acatccataa 240
gtggagaang aaatagatta atgtcnaagt atgattgggt gagggagcaa gggtgaagat 300
aatctggggg tgaaattttc tagttttcat tctgtacatt tttagttnqa catcagattt 360
gaaatattaa tgtttacctt tcaatgtgtg gtatcagctg gactcantaa caccctttc 420
ttccctnggg gatggggaat ggattatttg aaaatggaaa gaaaaaagta cttaaagcct 480
tcctttcnca gtttctggct cctaccctac tgatttancc agaataagaa aacattttat 540
catcntctgc tttattccca ttaatnaant tttgatgaat aaatctgctt ttatgcnnac 600
ccaaggaatt nagtggnntc ntcnttgt 628
```

<210> 87

<211> 518

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 384, 421, 486

<223> n = A,T,C or G

<400> 87

```

ttttttat ttttttagaga gtagttcagc ttttatttat aaattttattg cctgtttttat 60
tataacaaca ttatactggt tatggtttaa tacatatggt tcaaaatgta taatacatca 120
agtagtacag ttttaaaatt ttatgcttaa aacaagtttt gtgtaaaaaa tgcagataca 180
ttttacatgg caaatcaatt ttttaagtcac cctaaaaaatt gatttttttt tgaaatttaa 240
aaacacattt aattttcaatt tctctcttat ataaccttta ttactatagc atgggtttcca 300
ctacagttta acaatgcagc aaaattccca tttcacggta aattgggttt taagcggcaa 360
ggttaaaatg ctttgaggat cctnaatacc ctttgaactt caaatgaagg ttatgggtgt 420
naatttaacc ctcatgccat aagcagaagc acaagtttag ctgcattttg ctctaaactg 480
taaaancgag ccccccggtg aaaaagcaaa agggacc 518

```

<210> 88

<211> 1844

<212> DNA

<213> Homo sapiens

<400> 88

```

gagacagtga atcctagtat caaaggattt ttggcctcag aaaaagttgt tgattatttt 60
tattttat ttttttcga gactccgtct caaaaaaaaa aaaaaaaaaa agaatacaca 120
ggtatttgct aaagcatttt gagctgcttg gaaaaaggga agtagttgca gtagagtttc 180
ttccatcttc ttggtgctgg gaagccatat atgtgtcttt tactcaagct aaggggtata 240
agcttatgtg ttgaatttgc tacatctata tttcacatat tctcacaata agagaatttt 300
gaaatagaaa tatcatagaa catttaagaa agtttagtat aaataatatt ttgtgtgttt 360
taatcccttt gaagggatct atccaaagaa aatattttac actgagctcc ttccacacag 420
tctcagtaac agatcctgtg ttagtctttg aaaatagctc attttttaa tgtagtgag 480
tagatgtagc atacatatga tgtataatga cgtgtattat gttacaatg tctgcagatt 540
ttgtaggaa acaaaacatg gcctttttta taagcaaaac gggccaatga ctagaataac 600
acatagggca atctgtgaat atgtattata agcagcattc cagaaaagta gttggtgaaa 660
taattttcaa gtcaaaaagg gatattgaaa gggaattatg agtaacctct attttttaag 720
ccttgctttt aaattaaacg ctacagccat ttaagccttg aggataataa agcttgagag 780
taataatggt aggttagcaa aggtttagat gtatcacttc atgcatgcta ccatgatagt 840
aatgcagctc ttcgagtcac ttctggtcac tcaagatatt cacccttttg cccatagaaa 900
gcaccctacc tcacctgctt actgacattg tcttagctga tcacaagatc attatcagcc 960
tccattatc cttactgtat ataaaataca gagttttata ttttccttc ttcgtttttc 1020
accatattca aaacctaaat ttgtttttgc agatggaatg caaagtaatc aagtgttcgt 1080
gctttcacct agaaggggtg ggtcctgaag gaaagaggtc cctaaatatc cccaccctg 1140
ggtgctcctc cttccctggt accctgacta ccagaagtca ggtgctagag cagctggaga 1200
agtgcagcag cctgtgcttc cacagatggg ggtgctgctg caacaaggct ttcaatgtgc 1260
ccatcttagg gggagaagct agatcctgtg cagcagcctg gtaagtctg aggaggttc 1320
attgctcttc ctgctgctgt cctttgcttc tcaacggggc tcgctctaca gtctagagca 1380
catgcagcta acttggtgct ctgcttatgc atgagggtta aattaacaac cataaccttc 1440
atttgaagtt caaagggtga ttcaggatcc tcaaagcatt ttaaccttgc cgcttaaaac 1500
ccaatttacc gtgaaatggg aattttgctg cattgttaaa ctgtagtgg aacctgcta 1560
tagtaataaa ggttatataa gagagaaatt gaaattaaat gtgtttttaa atttcaaaa 1620
aaaatcaatc tttaggatga cttaaaaatt gatttgccat gtaaaatgta tctgcatttt 1680
ttacacaaaa cttgttttaa gcataaaatt ttaaaactgt actacttgat gtattataca 1740
ttttgaacca tatgtattaa accataaaca gtataatgtt gttataataa aacaggcaat 1800
aaatttataa ataaaagctg aaaaaaaaaa aaaaaaaaaa aaaa 1844

```

<210> 89

<211> 523

<212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 288, 352, 369, 398, 475, 511, 513
 <223> n = A,T,C or G

<400> 89
 tttttttttt ttttttttagt caatccacat ttattgatca cttattatgt accaggcact 60
 gggataaaga tgactgttag tcactcacag taaggaagaa aactagcaaa taagacgatt 120
 acaatatgat gtagaaaatg ctaagccaga gatatagaaa ggtcctattg ggtccttctg 180
 tcaccttgtc tttccacatc cctacccttc acaggccttc cctccagctt cctgcccccg 240
 ctccccactg cagatcccct gggattttgc ctagagctaa acgagganat gggccccctg 300
 gccctggcat gacttgaacc caaccacaga ctgggaaagg gagcctttcg anagtggatc 360
 actttgatna gaaaacacat agggaattga agagaaantc cccaaatggc caccctgtgct 420
 ggtgctcaag aaaagtttgc agaatggata aatgaaggat caagggaatt aatanatgaa 480
 taattgaatg gtggctcaat aagaatgact ncnttgaatg acc 523

<210> 90
 <211> 604
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 563
 <223> n = A,T,C or G

<400> 90
 ccagtgtggt ggaatgcaaa gattaccccc gaagcttttc agaagctggg attccctgca 60
 gcaaaggaaa tagccaatat gtgtcgtttc tatgaaatga agccagaccg agatgtcaat 120
 ctaccccacc aactaaatcc caaagtcaaa agcttcagcc agtttatctc agagaaccag 180
 gggagccttc aaggggcatgt agaaaatcag ctgttcagat aggcctctgc accacacagc 240
 ctctttcctc tctgatcctt ttcctcttta cggcacaaca ttcattgtttg acagaacatg 300
 ctggaatgca attgtttgca acaccgaagg atttcctgcg gtcgcctctt cagtaggaag 360
 cactgcattg gtgataggac acggtaattt gattcacatt taacttgcta gttagtata 420
 aggggtggta cacctgtttg gtaaaatgag aagcctcgga aacttgggag cttctctcct 480
 accactaatg gggagggcag attattactg ggatttctcc tggggatgaat taatttcaag 540
 ccctaattgc tgaaattccc ctnggcaggc tccagttttc tcaactgcat tgcaaaattc 600
 cccc 604

<210> 91
 <211> 858
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 570, 591, 655, 664, 667, 683, 711, 759, 760, 765, 777, 787,
 792, 794, 801, 804, 809, 817, 820
 <223> n = A,T,C or G

<400> 91

```

tttttttttt ttttttttta tgattattat tttttttatt gatctttaca tcctcagtgt 60
tggcagagtt tctgatgctt aataaacatt tgttctgata agataagtgg aaaaaattgt 120
catttcctta ttcaagccat gcttttctgt gatattctga tcctagttga acatacagaa 180
ataaatgtct aaaacagcac ctcgattctc gtctataaca ggactaagtt cactgtgatc 240
ttaaataagc ttggctaaaa tgggacatga gtggaggtag tcacacttca gcgaagaaag 300
agaatctcct gtataatctc accaggagat tcaacgaatt ccaccacact ggactagtgg 360
atccccggg ctgcaggaat tcgatatcaa gcttatcgat accgtcgacc tcgagggggg 420
gcccggtacc caattcgccc tatagtgagt cgtattacgc gcgctcactg gccgtcgttt 480
tacaacgtcg tgactgggaa aacctggcg ttacccaact taatcgctt gcagcacatc 540
cccctttcgc cagctggcgt aatagcgaan agcccgacc gatcgccctt ncaacagttg 600
cgcagcctga atggcgaatg ggacgcgccc tgtagcggcg cattaaagcg cggcnggggtg 660
tggnggntcc cccacgtgac cgntacactt ggcagcgctt tacgccggtc ntctcgctttc 720
ttcccttcct ttctcgacc gttcgccggg tttccccgnn agctnttaat cgggggnctc 780
cctttanggg tncnaattaa nggnttacng gaccttngan cccaaaaact ttgattaggg 840
ggaaggtccc cgaagggg

```

<210> 92

<211> 585

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 317, 319, 320, 321, 325, 327, 328, 330, 331, 332, 460, 462, 483, 485, 487, 523, 538, 566, 584

<223> n = A,T,C or G

<400> 92

```

gttgaatctc ctggtgagat tatacaggag attctctttc ttcgctgaag tgtgactacc 60
tccactcatg tcccatttta gccaaagctta tttaagatca cagtgaactt agtcctgtta 120
tagacgagaa tcgaggtgct gtttttagaca tttatttctg tatgttcaac taggatcaga 180
atatcacaga aaagcatggc ttgaataagg aaatgacaat tttttccact tatctgatca 240
gaacaaatgt ttattaagca tcagaaactc tgccaacact gaggatgtaa agatcaataa 300
aaaaaataat aatcatnann naaanannan nngaagggcg gccgccaccg cgggtggagct 360
ccagcttttg ttccctttag tgagggttaa ttgcgcgctt ggcgttaatc atgggtcatag 420
ctgtttcctg tgtgaaattg ttatccggct cacaattcen cncaacatac gagccgggaa 480
gcntnangtg taaaagcctg ggggtgccta attgagttag ctnactcaca ttaattgngt 540
tgcgctccac ttgcccgctt ttccantccg ggaaacctgt tcgnc

```

<210> 93

<211> 567

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 82, 158, 230, 232, 253, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 295, 303, 307, 314, 349, 352, 354, 356, 366, 369, 379, 382, 386, 393, 404, 427, 428, 446, 450, 452

<223> n = A,T,C or G

<221> misc_feature

<222> 453, 454, 459, 462, 480, 481, 483, 488, 493, 501, 509, 511,

512, 518, 520, 525, 526, 532, 541, 557

<223> n = A,T,C or G

<400> 93

```
cggcagtggt gctgtctgcg tgtccacctt ggaatctggc tgaactggct gggaggacca 60
agactgcggc tggggtgggc anggaaggga accgggggct gctgtgaagg atcttggaac 120
ttccctgtac ccaccttccc cttgttcat gtttgtanag gaaccttggt cggccaagc 180
ccagtttcct tgtgtgatac actaatgtat ttgctttttt tgggaaatan anaaaaatca 240
attaaattgc tantgtttct ttgaannnnn nnnnnnnnnn nnnnnnnggg ggggncgccc 300
ccnccgngga aacnccccct tttgttcctt ttaattgaaa ggtaattng cncncntggc 360
gttaancnt gggccaaanc tngttncctg tgntgaaatt gtnatcccc tcccaaattc 420
ccccenncc ttccaaaccc ggaaancctn annntgttna ancccggggg gttgcctaan 480
ngnaattnaa ccnaaccccc nttaaattng nntttgcncn ccacnngccc cncctttcca 540
nttcggggaa aacctntcc gtgccc 567
```

<210> 94

<211> 620

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 169, 171, 222, 472, 528, 559, 599

<223> n = A,T,C or G

<400> 94

```
actagtcaaa aatgctaaaa taatttgga gaaaatattt ttaagtagt gttatagttt 60
catgtttatc ttttattatg tttgtgaag ttgtgtcttt tcactaatta cctatactat 120
gccaatattt ccttatactc atccataaca tttatactac atttgaana naatatgcac 180
gtgaaactta acactttata aggtaaaaat gaggtttcca anatttaata atctgatcaa 240
gttcttggtta ttccaaata gaatggactt ggtctgttaa gggctaagga gaagaggaag 300
ataaggttaa aagttgttaa tgaccaaaca ttctaaaaga aatgcaaaaa aaaagtattat 360
tttcaagcct tcgaactatt taaggaaagc aaaatcattt cctaaatgca tatcatttgt 420
gagaatttct cattaatatc ctgaatcatt catttcacta aggcctcatgt tnactccgat 480
atgtctctaa gaaagtacta tttcatggtc caaacctggg tgccatantt gggtaaaggc 540
tttcccttaa gtgtgaaant atttaaaatg aaattttcct ctttttaaaa attctttana 600
agggttaagg gtgttgggga 620
```

<210> 95

<211> 470

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 61, 67, 79, 89, 106, 213, 271, 281, 330, 354, 387, 432, 448

<223> n = A,T,C or G

<400> 95

```
ctcgaccttc tctgcacagc ggatgaaccc tgagcagctg aagaccagaa aagccactat 60
nactttntgc ttaattcang agcttacang attcttcaaa gagtngtcc agcatccttt 120
gaaacatgag ttcttaccag cagaagcaga cctttacccc accacctcag cttcaacagc 180
agcaggtgaa acaacccatc cagcctccac ctnaggaaat attgttccc acaaccaagg 240
agccatgcca ctcaaagggt ccacaacctg naaacacaaa nattccagag ccaggctgta 300
```

```

ccaaggtccc tgagccaggg ctgtaccaan gtccctgagc caggttgtag caangtcacct 360
gagccaggat gtaccaaggt ccctgancca gggtgtccaa gggtccctgag ccaggctaca 420
ccaagggcct gngccaggca gcatcaangt ccctgaccaa ggcttatcaa 470

```

```

<210> 96
<211> 660
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 299, 311, 360, 426, 538, 540, 542, 553, 563, 565, 592, 603,
604, 618, 633, 647, 649, 651, 653
<223> n = A,T,C or G

```

```

<400> 96
tttttttttt tttttttttt ggaattaaaa gcaatttaat gagggcagag caggaaacat 60
gcatttcctt tcattcgaat cttcagatga accctgagca gccgaagacc agaaaagcca 120
tgaagacttt ctgcttaatt caggggctta caggattctt cagagtgtgt gtgaacaaaa 180
gctttatagt acgtattttt aggatacaaa taagagagag actatggctt ggggtgagaa 240
tgtactgatt acaaggtcta cagacaatta agacacagaa acagatggga agagggtgnc 300
cagcatctgg nggttggctt ctcaagggtt tgtctgtgca ccaaattact tctgcttggn 360
cttctgctga gctgggcctg gagtgaacct tgaaggacat ggctctggta cctttgtgta 420
gcctgncaca ggaactttgg tgtatccttg ctcaggaact ttgatggcac ctggctcagg 480
aaacttgatg aagccttggc caagggacct tgatgcttgc tggctcaggg accttggnn 540
ancctgggct canggacctt tgnncnaacc ttggcttcaa gggaccttg gnacatcctg 600
gcnaggggac ccttgggncc aaccctgggc ttnagggaac ctttggntnc nanccttggc 660

```

```

<210> 97
<211> 441
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 12, 308
<223> n = A,T,C or G

```

```

<400> 97
gggaccatac anagtattcc tctcttcaca ccaggaccag ccaactgttg aqcatgagtt 60
cccagcagca gaagcagccc tgcacccac cccctcagct tcagcagcag caggtgaaac 120
agccttgcca gcctccacct caggaacct gcatcccaa aaccaaggag ccctgccacc 180
ccaaggtgcc tgagccctgc caccctaaag tgctgagcc ctgccagccc aaggttccag 240
agccatgcca cccaagggtg cctgagccct gcccttcaat agtcactcca gcaccagccc 300
agcagaanac caagcagaag taatgtggc cagagccatg cccttgagga gccggccacc 360
agatgctgaa tcccctatcc cattctgtgt atgagtccca tttgccttgc aattagcatt 420
ctgtctcccc caaaaaaaaa a 441

```

```

<210> 98
<211> 600
<212> DNA
<213> Homo sapiens

```

<220>
 <221> misc_feature
 <222> 295, 349, 489, 496, 583
 <223> n = A,T,C or G

<400> 98
 gtatttctct cttcacacca ggaccagcca ctgttgcagc atgagttccc agcagcagaa 60
 gcagccctgc atcccacccc ctccagcttca gcagcagcag gtgaaacagc cttgccagcc 120
 tccacctcag gaaccatgca tccccaaaac caaggagccc tgccacccca aggtgcctga 180
 gccctgccac cccaaagtgc ctgagccctg ccagcccaag gttccagagc catgccaccc 240
 caagggtgcct gagccctgcc cttcaatagt cactccagca ccagcccagc agaanaccaa 300
 gcagaagtaa tgtgtgccac agccatgccc ttgaggagcc ggccaccana tgctgaatcc 360
 cctatcccat tctgtgtatg agtcccattt gccttgcaat tagcattctg tctcccccaa 420
 aaaagaatgt gctatgaagc tttctttcct acacactctg agtctctgaa tgaagctgaa 480
 ggtcttaant acaganctag ttttcagctg ctcagaattc tctgaagaaa agatttaaga 540
 tgaaaggcaa atgattcagc tccttattac cccattaaat tcnctttcaa ttccaaaaaa 600

<210> 99
 <211> 667
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 345, 562, 635
 <223> n = A,T,C or G

<400> 99
 actagtgact gagttcctgg caaagaaatt tgacctggac cagttgataa ctcatgtttt 60
 accattttaa aaaatcagtg aaggatttga gctgctcaat tcaggacaaa gcattcgaac 120
 ggtcctgacg ttttgagatc caaagtggca ggagggtctgt gttgtcatgg tgaactggag 180
 tttctcttgt gagagttccc tcatctgaaa tcatgtatct gtctcacaaa tacaagcata 240
 agtagaagat ttgttgaaga catagaaccc ttataaagaa ttattaacct ttataaacat 300
 ttaaagtctt gtgagcacct gggaattagt ataataacaa tgttnatatt tttgatttac 360
 attttgtaag gctataattg tatcttttaa gaaaacatac cttggatttc tatgttgaaa 420
 tggagatttt taagagtttt aaccagctgc tgcagatata ttactcaaaa cagatatagc 480
 gtataaagat atagtaaagc catctcctag agtaatatc acttaacaca ttggaaacta 540
 ttatttttta gatttgaata tnaatgttat tttttaaaca cttgttatga gttacttggg 600
 attacatttt gaaatcagtt cattccatga tgcanattac tgggattaga ttaagaaaaga 660
 cggaaaaa 667

<210> 100
 <211> 583
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 404, 506, 514, 527, 528, 538, 548, 556, 568, 569
 <223> n = A,T,C or G

<400> 100
 gttttgtttg taagatgatc acagtcatgt tacactgatc taaaggacat atatataacc 60

```

ctttaaaaaa aaaatcactg cctcattcctt atttcaagat gaatttctat acagactaga 120
tgtttttctg aagatcaatt agacattttg aaaatgattt aaagtgtttt ccttaatgtt 180
ctctgaaaac aagtttcttt tgtagtttta accaaaaaag tgcccttttt gtccactggat 240
tctcctagca ttcattgattt ttttttcata caatgaaatt aaaattgcta aaatcatgga 300
ctggctttct gggttgattt caggtaagat gtgtttaagg ccagagcttt tctcagtatt 360
tgattttttt cccaatatt tgatttttta aaaatatata catnggtgct gcatttatat 420
ctgctgggtt aaaattctgt catatttcac ttctagcctt ttagttatgg caaatcatat 480
tttactttta cttaaagcat ttggttattt ggantatctg gttctannct aaaaaaanta 540
attctatnaa ttgaantttt ggtactcnnc catatttgga tcc 583

```

<210> 101

<211> 592

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 218, 497, 502, 533, 544, 546, 548, 550, 555

<223> n = A,T,C or G

<400> 101

```

gtggagacgt acaaagagca gccgctcaag acacctggga agaaaaagaa aggcaagccc 60
gggaaacgca aggagcagga aaagaaaaaa cggcgaactc gctctgcctg gtttagactct 120
ggagtgcactg ggagtgggct agaaggggac cacctgtctg acacctccac aacgtcgctg 180
gagctcgatt cacggaggca ttgaaatttt cagcaganac cttccaagga catattgcag 240
gattctgtaa tagtgaacat atggaaagta ttagaaatat ttattgtctg taaatactgt 300
aaatgcattg gaataaaact gtctccccc tigtctctatg aaactgcaca ttgggtcattg 360
tgaatatattt tttttttgcc aaggctaata caattattat tatcacattt accataattt 420
attttgtcca ttgatgtatt tattttgtaa atgtatcttg gtgctgctga atttctatat 480
tttttgtaca taatgcnttt anatatacct atcaagtttg ttgataaatg acncaatgaa 540
gtgncncnan ttgngngygtg aatttaatga atgcctaatt ttattatccc aa 592

```

<210> 102

<211> 587

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 91, 131, 256, 263, 332, 392, 400, 403, 461, 496, 497, 499, 510, 511, 518, 519, 539, 554, 560, 576

<223> n = A,T,C or G

<400> 102

```

cgtcctaagc acttagacta catcagggaa gaacacagac cacatccctg tcctcatgcg 60
gcttatgttt tctggaagaa agtggagacc nagtccttgg ctttagggct ccccggtggt 120
gggctgtgca ntccggtcag ggcggaagg gaaatgcacc gctgcatgtg aacttacagc 180
ccaggcggat gccccttccc ttagcactac ctggcctcct gcatccctc gcctcatgtt 240
cctcccacct tcaanaaatg aanaacccca tgggccagc cccttgccct ggggaaccaa 300
ggcagccttc caaaactcag gggctgaagc anactattag ggcaggggct gactttgggt 360
gacactgccc attccctctc agggcagctc angtcacccn ggnctcttga acccagcctg 420
ttcctttgaa aaagggcaaa actgaaaagg gcttttccta naaaaagaaa aaccagggaa 480
ctttgccagg gcttcnntnt taccaaaacn ncttctcnng gatttttaat tccccattng 540
gcctccactt accnggggcn atgccccaaa attaanaatt tcccatc 587

```


<210> 103
 <211> 496
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> 2, 17, 66, 74, 82, 119, 164, 166, 172, 200, 203, 228, 232,
 271, 273, 415, 423, 445, 446, 473
 <223> n = A,T,C or G

<400> 103
 anaggactgg ccctacntgc tctctctcgt cctacctatc aatgcccaac atggcagaac 60
 ctgcanccct tggncactgc anatggaaac ctctcagtgt cttgacatca ccctaccnt 120
 gcggtgggtc tccaccacaa ccactttgac tctgtggtcc ctgnanggtg gnttctcctg 180
 actggcagga tggaccttan ccnacatata cctctgttcc ctctgctnag anaaagaatt 240
 cccttaacat gatataatcc acccatgcaa ntngctactg gccagctac catttaccat 300
 ttgcctacag aatttcattc agtctacact ttggcattct ctctggcgat agagtgtggc 360
 tgggctgacc gcaaaagggtg ccttacacac tggcccccac cctcaaccgt tgacncatca 420
 gangcttgcc tcctccttct gattnncccc catgttggat atcagggtgc tcnagggtatt 480
 ggaaaagaaa caaac 496

<210> 104
 <211> 575
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> 18, 19, 45, 68, 77, 132, 155, 174, 219, 226, 238, 259, 263,
 271, 273, 306, 323, 339, 363, 368, 370, 378, 381, 382, 436,
 440, 449, 450, 456, 481, 485, 496, 503, 510, 512, 515, 528,
 542, 552
 <223> n = A,T,C or G

<400> 104
 gcacctgctc tcaatccnnc tctcaccatg atcctccgcc tgcanaaact cctctgccaa 60
 ctatggangt ggtttcnggg gtggctcttg ccaactggga agaagccgtg gtgtctctac 120
 ctgttcaact cngtttgtgt ctgggggatc aactnggggc tatggaagcg gctnaactgt 180
 tgttttggtg gaagggtctg taattggctt tgggaagtng cttatnqaaq ttggcctnng 240
 gaagttgcta ttgaaagtng cnttggaagt ngntttggtg gggggttttg ctggtggcct 300
 ttgttnaatt tgggtgcttt gtnaatggcg gccccctcnc ctgggcaatg aaaaaaatca 360
 ccnatgcngn aaacctcnac nnaacagcct gggcttccct cacctcgaaa aaagttgctc 420
 ccccccaaaa aaaggncaan cccctcaann tggaangttg aaaaaatcct cgaatgggga 480
 nccnnaaaac aaaaancccc ccntttcccn gnaangggg aaataccncc cccccactta 540
 cnaaaaccct tntaaaaaac cccccgggaa aaaaa 575

<210> 105
 <211> 619
 <212> DNA
 <213> Homo sapiens

<220>

<221> misc_feature
 <222> 260, 527, 560, 564, 566, 585, 599
 <223> n = A,T,C or G

<400> 105
 cactagtagg atagaaacac tgtgtcccga gagtaaggag agaagctact attgattaga 60
 gcctaaccga ggttaactgc aagaagaggc gggatacttt cagctttcca tgtaactgta 120
 tgcataaagc caatgtagtc cagtttctaa gatcatgttc caagctaact gaatcccact 180
 tcaatacaca ctcatgaact cctgatggaa caataacagg cccaagcctg tggatatgatg 240
 tgcacacttg ctagactcan aaaaaatact actctcataa atgggtggga gtatttttgg 300
 gacaacctac tttgcttggc tgagtgaagg aatgatattc atatattcat ttattccatg 360
 gacatttagt tagtgctttt tatataccag gcatgatgct gagtgaact cttgtgtata 420
 tttccaaatt tttgtacagt cgctgcacat atttgaaatc atatattaag acttccaaaa 480
 aatgaagtcc ctggtttttc atggcaactt gatcagtaaa ggattcncct ctgtttggt 540
 cttaaaacat ctactatatn gttanatatga aattcctttt cccncctcc cgaaaaaana 600
 aagtgggtggg gaaaaaaaaa 619

<210> 106
 <211> 506
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 8, 21, 31, 32, 58, 75, 89, 96, 99, 103, 122, 126, 147, 150,
 158, 195, 210, 212, 219, 226, 246, 248, 249, 255, 258, 261,
 263, 265, 275, 304, 317, 321, 331, 337, 340, 358, 371, 377,
 380, 396, 450, 491
 <223> n = A,T,C or G

<400> 106
 cattggttct ttcatttgc ntggaagtgt nnatctctaa cagtggacaa agttcccngt 60
 gccttaaaact ctgnacact tttgggaant gaaaantng tantatgata gggtattctg 120
 angtanagat gttctggata ccattanatn tgccccngt gtcagaggct catattgtgt 180
 tatgtaaatg gtatntcatt cgctactatn antcaattng aaatanggtc tttgggttat 240
 gaatantng cagcncanct nanangctgt ctgtngtatt cattgtggtc atagcacctc 300
 acancattgt aacctcnatc nagtgagaca nactagnaant ttcctagtga tggctcanga 360
 ttccaaatgg nctcatntcn aatgttttaa agttanttaa gtgtaagaaa tacagactgg 420
 atgttccacc aactagtacc tgtaatgacn ggctgtccc aacacatctc ctttttccat 480
 gactgtggtgta ncccgcacgc gaaaaa 506

<210> 107
 <211> 452
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 289, 317, 378
 <223> n = A,T,C or G

<400> 107
 gttgagtctg tactaaacag taagatatct caatgaacca taaattcaac tttgtaaaaa 60
 tcttttgaag catagataat attgtttggg aaatgtttct tttgtttggg aaatgtttct 120

```

tttaaagacc ctcctattct ataaaactct gcatgtagag gcttgtttac ctttctctct 180
ctaagggttta caataggagt ggtgatttga aaaatataaa attatgagat tggttttcct 240
gtggcataaaa ttgcatcact gtatcatttt cttttttaac cggtaagant ttcagtttgt 300
tggaagtaaa ctgtganaac ccagtttccc gtccatctcc cttagggact acccatagaa 360
catgaaaagg tccccacnga agcaagaaga taagtctttc atggctgctg gttgcttaaa 420
ccactttaaa accaaaaaat tccccttgga aa 452

```

```

<210> 108
<211> 502
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 22, 31, 126, 168, 183, 205, 219, 231, 236, 259, 283, 295,
296, 298, 301, 340, 354, 378, 383, 409, 433, 446, 455, 466,
488
<223> n = A,T,C or G

```

```

<400> 108
atcttcttcc cttaattagt tnttatttat ntattaaatt ttattgcatg tcctggcaaa 60
caaaaagaga ttgtagattg gcttctggct ccccaaaagc ccataacaga aagtaccaca 120
agaccncaac tgaagcttaa aaaatctatc acatgtataa tacctttnga agaacattaa 180
tanagcatat aaaactttta acatntgctt aatgttgtnc aattataaaa ntaatngaaa 240
aaaatgtccc tttaacatnc aatatccac atagtgttat ttnaggggat taccnngnaa 300
naaaaaaagg gtagaaggga tttaatgaaa actctgcttn ccatttctgt ttanaaacgt 360
ctccagaaca aaaacttntc aantctttca gctaaccgca tttgagctna ggccactcaa 420
aaactccatt agncccaactt tctaanggtc tctanagctt actaanctt ttgaccctt 480
accctggnta ctcctgccct ca 502

```

```

<210> 109
<211> 1308
<212> DNA
<213> Homo sapiens

```

```

<400> 109
acccgaggtc tcgctaaaat catcatggat tcacttggcg ccgtcagcac tcgacttggg 60
tttgatcttt tcaaagagct gaagaaaaca aatgatggca acatcttctt tcccctgtg 120
ggcatcttga ctgcaatttg catggtcctc ctggggaccc gaggagccac cgcttcccag 180
ttggaggagg tgtttctact tgaaaaagag acgaagagct caagaataaa ggctgaagaa 240
aaagagggtg ttgagaacac agaagcagta catcaacaat tccaaaagtt tttgactgaa 300
ataagcaaac tcactaatga ttatgaactg aacataacca acaggctgtt tggagaaaaa 360
acatacctct tccttcaaaa atacttagat tatgttgaaa aatattatca tgcattctctg 420
gaacctgttg attttgtaaa tgcagccgat gaaagtcgaa agaagattaa ttcctgggtt 480
gaaagcaaaa caaatgaaaa aatcaaggac ttgttcccag atggctctat tagtagctct 540
accaagctgg tgctgggtgaa catggtttat tttaaagggc aatgggacag ggagtttaag 600
aaagaaaata ctaagggaaga gaaatttttg atgaataaga gcacaagtaa atctgtacag 660
atgatgacac agagccattc ctttagcttc actttcctgg aggacttgca ggccaaaatt 720
ctagggattc catataaaaa caacgacctc agcatgtttg tgcttctgcc caacgacatc 780
gatggcctgg agaagataat agataaaata agtcctgaga aattggtaga gtggactagt 840
ccagggcata tggaagaaag aaaggtgaat ctgcacttgc cccggtttga ggtggaggac 900
agttacgatc tagaggcggg cctggctgcc atggggatgg gcgatgcctt cagtgagcac 960
aaagccgact actcgggaat gtcgtcaggc tccgggttgt acgcccagaa gttcctgcac 1020
agttcctttg tggcagtaac tgaggaaggc accgaggctg cagctgccac tggcataggc 1080

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tttactgtca catccgcccc aggtcatgaa aatgttcact gcaatcatcc cttcctgttc 1140
ttcatcaggc acaatgaatc caacagcatc ctcttcttcg gcagattttc ttctccttaa 1200
gatgatcggt gccatggcat tgctgctttt agcaaaaaac aactaccagt gttactcata 1260
tgattatgaa aatcgtccat tcttttaaat ggtggctcac ttgcattt 1308

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<210> 110

<211> 391

<212> PRT

<213> Homo sapiens

<400> 110

```

Met Asp Ser Leu Gly Ala Val Ser Thr Arg Leu Gly Phe Asp Leu Phe
 1          5          10          15
Lys Glu Leu Lys Thr Asn Asp Gly Asn Ile Phe Phe Ser Pro Val
 20          25          30
Gly Ile Leu Thr Ala Ile Gly Met Val Leu Leu Gly Thr Arg Gly Ala
 35          40          45
Thr Ala Ser Gln Leu Glu Glu Val Phe His Ser Glu Lys Glu Thr Lys
 50          55          60
Ser Ser Arg Ile Lys Ala Glu Glu Lys Glu Val Ile Glu Asn Thr Glu
 65          70          75          80
Ala Val His Gln Gln Phe Gln Lys Phe Leu Thr Glu Ile Ser Lys Leu
 85          90          95
Thr Asn Asp Tyr Glu Leu Asn Ile Thr Asn Arg Leu Phe Gly Glu Lys
100          105          110
Thr Tyr Leu Phe Leu Gln Lys Tyr Leu Asp Tyr Val Glu Lys Tyr Tyr
115          120          125
His Ala Ser Leu Glu Pro Val Asp Phe Val Asn Ala Ala Asp Glu Ser
130          135          140
Arg Lys Lys Ile Asn Ser Trp Val Glu Ser Lys Thr Asn Glu Lys Ile
145          150          155          160
Lys Asp Leu Phe Pro Asp Gly Ser Ile Ser Ser Ser Thr Lys Leu Val
165          170          175
Leu Val Asn Met Val Tyr Phe Lys Gly Gln Trp Asp Arg Glu Phe Lys
180          185          190
Lys Glu Asn Thr Lys Glu Glu Lys Phe Trp Met Asn Lys Ser Thr Ser
195          200          205
Lys Ser Val Gln Met Met Thr Gln Ser His Ser Phe Ser Phe Thr Phe
210          215          220
Leu Glu Asp Leu Gln Ala Lys Ile Leu Gly Ile Pro Tyr Lys Asn Asn
225          230          235          240
Asp Leu Ser Met Phe Val Leu Leu Pro Asn Asp Ile Asp Gly Leu Glu
245          250          255
Lys Ile Ile Asp Lys Ile Ser Pro Glu Lys Leu Val Glu Trp Thr Ser
260          265          270
Pro Gly His Met Glu Glu Arg Lys Val Asn Leu His Leu Pro Arg Phe
275          280          285
Glu Val Glu Asp Ser Tyr Asp Leu Glu Ala Val Leu Ala Ala Met Gly
290          295          300
Met Gly Asp Ala Phe Ser Glu His Lys Ala Asp Tyr Ser Gly Met Ser
305          310          315          320
Ser Gly Ser Gly Leu Tyr Ala Gln Lys Phe Leu His Ser Ser Phe Val
325          330          335
Ala Val Thr Glu Glu Gly Thr Glu Ala Ala Ala Ala Thr Gly Ile Gly

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          340          345          350
Phe Thr Val Thr Ser Ala Pro Gly His Glu Asn Val His Cys Asn His
          355          360          365
Pro Phe Leu Phe Phe Ile Arg His Asn Glu Ser Asn Ser Ile Leu Phe
          370          375          380
Phe Gly Arg Phe Ser Ser Pro
385          390

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<210> 111
<211> 1419
<212> DNA
<213> Homo sapiens

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<400> 111
ggagaactat aaattaagga tcccagctac ttaattgact tatgcttcct agttcgttgc 60
ccagccacca ccgtctctcc aaaaacccga ggtctcgcta aaatcatcat ggattcactt 120
ggcgccgtca gcactcgact tgggtttgat cttttcaaag agctgaagaa aacaaatgat 180
ggcaacatct tcttttcccc tgtgggcatc ttgactgcaa ttggcatggg cctcctgggg 240
acccgaggag ccaccgcttc ccagttggag gaggtgtttc actctgaaaa agagacgaag 300
agctcaagaa taaaggctga agaaaaagag gtggttaagaa taaaggctga aggaaaagag 360
attgagaaca cagaagcagt acatcaacaa ttccaaaagt ttttgactga aataagcaaa 420
ctcactaatg attatgaact gaacataacc aacaggctgt ttggagaaaa aacatacctc 480
ttccttcaaa aatacttaga ttatgttgaa aaatattatc atgcatctct ggaacctgtt 540
gattttgtaa atgcagccga tgaaagtcca aagaagatta attcctgggt tgaaagcaaa 600
acaaatgaaa aaatcaagga cttgttccca gatggctcta ttagtagctc taccaagctg 660
gtgctgggtga acatggttta ttttaaaggg caatgggaca gggagttaa gaaagaaaat 720
actaaggaag agaaattttg gatgaataag agcacaagta aatctgtaca gatgatgaca 780
cagagccatt ccttttagctt cactttcctg gaggacttgc aggcacaaaat tctagggatt 840
ccatataaaa acaacgacct aagcatgttt gtgcttctgc ccaacgacat cgatggcctg 900
gagaagataa tagataaaat aagtcctgag aaattggtag agtggactag tccagggcat 960
atggaagaaa gaaaggtgaa tctgcacttg ccccggtttg aggtggagga cagttacgat 1020
ctagaggcgg tcctggctgc catggggatg ggcgatgcct tcagttagca caaagccgac 1080
tactcgggaa tgtcgtcagg ctccgggttg tacgccaga agttcctgca cagttccttt 1140
gtggcagtaa ctgaggaagg caccgaggct gcagctgcca ctggcatagg ctttactgtc 1200
acatccgcc caggtcatga aaatgttcac tgcaatcacc ctttctgtt cttcatcagg 1260
cacaatgaat ccaacagcat cctcttcttc ggcagatttt cttctcctta agatgatcgt 1320
tgccatggca ttgctgcttt tagcaaaaaa caactaccag tgttactcat atgattatga 1380
aaatcgtcca ttcttttaaa tgggtggtca cttgcattt 1419

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<210> 112
<211> 400
<212> PRT
<213> Homo sapiens

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```

<400> 112
Met Asp Ser Leu Gly Ala Val Ser Thr Arg Leu Gly Phe Asp Leu Phe
  1          5          10          15
Lys Glu Leu Lys Lys Thr Asn Asp Gly Asn Ile Phe Phe Ser Pro Val
          20          25          30
Gly Ile Leu Thr Ala Ile Gly Met Val Leu Leu Gly Thr Arg Gly Ala
          35          40          45
Thr Ala Ser Gln Leu Glu Val Phe His Ser Glu Lys Glu Thr Lys
          50          55          60

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| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Arg | Ile | Lys | Ala | Glu | Glu | Lys | Glu | Val | Val | Arg | Ile | Lys | Ala | 65 | 70 | 75 | 80 |
| Glu | Gly | Lys | Glu | Ile | Glu | Asn | Thr | Glu | Ala | Val | His | Gln | Gln | Phe | Gln | 85 | 90 | 95 | |
| Lys | Phe | Leu | Thr | Glu | Ile | Ser | Lys | Leu | Thr | Asn | Asp | Tyr | Glu | Leu | Asn | 100 | 105 | 110 | |
| Ile | Thr | Asn | Arg | Leu | Phe | Gly | Glu | Lys | Thr | Tyr | Leu | Phe | Leu | Gln | Lys | 115 | 120 | 125 | |
| Tyr | Leu | Asp | Tyr | Val | Glu | Lys | Tyr | Tyr | His | Ala | Ser | Leu | Glu | Pro | Val | 130 | 135 | 140 | |
| Asp | Phe | Val | Asn | Ala | Ala | Asp | Glu | Ser | Arg | Lys | Lys | Ile | Asn | Ser | Trp | 145 | 150 | 155 | 160 |
| Val | Glu | Ser | Lys | Thr | Asn | Glu | Lys | Ile | Lys | Asp | Leu | Phe | Pro | Asp | Gly | 165 | 170 | 175 | |
| Ser | Ile | Ser | Ser | Ser | Thr | Lys | Leu | Val | Leu | Val | Asn | Met | Val | Tyr | Phe | 180 | 185 | 190 | |
| Lys | Gly | Gln | Trp | Asp | Arg | Glu | Phe | Lys | Lys | Glu | Asn | Thr | Lys | Glu | Glu | 195 | 200 | 205 | |
| Lys | Phe | Trp | Met | Asn | Lys | Ser | Thr | Ser | Lys | Ser | Val | Gln | Met | Met | Thr | 210 | 215 | 220 | |
| Gln | Ser | His | Ser | Phe | Ser | Phe | Thr | Phe | Leu | Glu | Asp | Leu | Gln | Ala | Lys | 225 | 230 | 235 | 240 |
| Ile | Leu | Gly | Ile | Pro | Tyr | Lys | Asn | Asn | Asp | Leu | Ser | Met | Phe | Val | Leu | 245 | 250 | 255 | |
| Leu | Pro | Asn | Asp | Ile | Asp | Gly | Leu | Glu | Lys | Ile | Ile | Asp | Lys | Ile | Ser | 260 | 265 | 270 | |
| Pro | Glu | Lys | Leu | Val | Glu | Trp | Thr | Ser | Pro | Gly | His | Met | Glu | Glu | Arg | 275 | 280 | 285 | |
| Lys | Val | Asn | Leu | His | Leu | Pro | Arg | Phe | Glu | Val | Glu | Asp | Ser | Tyr | Asp | 290 | 295 | 300 | |
| Leu | Glu | Ala | Val | Leu | Ala | Ala | Met | Gly | Met | Gly | Asp | Ala | Phe | Ser | Glu | 305 | 310 | 315 | 320 |
| His | Lys | Ala | Asp | Tyr | Ser | Gly | Met | Ser | Ser | Gly | Ser | Gly | Leu | Tyr | Ala | 325 | 330 | 335 | |
| Gln | Lys | Phe | Leu | His | Ser | Ser | Phe | Val | Ala | Val | Thr | Glu | Glu | Gly | Thr | 340 | 345 | 350 | |
| Glu | Ala | Ala | Ala | Ala | Thr | Gly | Ile | Gly | Phe | Thr | Val | Thr | Ser | Ala | Pro | 355 | 360 | 365 | |
| Gly | His | Glu | Asn | Val | His | Cys | Asn | His | Pro | Phe | Leu | Phe | Phe | Ile | Arg | 370 | 375 | 380 | |
| His | Asn | Glu | Ser | Asn | Ser | Ile | Leu | Phe | Phe | Gly | Arg | Phe | Ser | Ser | Pro | 385 | 390 | 395 | 400 |

<210> 113

<211> 957

<212> DNA

<213> Homo sapiens

<400> 113

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ctcgaccttc tctgcacagc ggatgaaccc tgagcagctg aagaccagaa aagccactat 60
gactttctgc ttaattcagg agcttacagg attcttcaaa gagtgtgtcc agcatccttt 120
gaaacatgag ttcttaccag cagaagcaga cctttacccc accacctcag cttcaacagc 180
agcaggtgaa acaacccagc cagcctccac ctcaggaaat atttggtccc acaaccaagg 240

```

```

agccatgcc  ctcaaagggt  ccacaacctg  gaaacacaaa  gattccagag  ccaggctgta  300
ccaaggtccc  tgagccaggc  tgtaccaagg  tccctgagcc  aggttgtagc  aaggtccctg  360
agccaggatg  taccaaggtc  cctgagccag  gttgtaccaa  ggtccctgag  ccaggctaca  420
ccaaggtccc  tgagccaggc  agcatcaagg  tccctgacca  aggttcatc  aagtttctg  480
agccagggtg  catcaaagtt  cctgagcaag  gatacaccaa  agttcctgtg  ccaggctaca  540
caaaggtacc  agagccatgt  cttcaacgg  tccctcagg  cccagctcag  cagaagacca  600
agcagaagta  atttggtgca  cagacaagcc  cttgagaagc  caaccaccag  atgctggaca  660
ccctcttccc  atctgtttct  gtgtcttaat  tgtctgtaga  ccttgtaatc  agtacattct  720
caccccaagc  catagtctct  ctcttatttg  taccctaaaa  atacggtact  ataaagcttt  780
tgttcacaca  cactctgaag  aatcctgtaa  gccctgaat  taagcagaaa  gtcttcatgg  840
cttttctgg  cttcggctgc  tcagggttca  tctgaagatt  cgaatgaaaa  gaaatgcatg  900
tttctgtctc  tgccctcatt  aaattgcttt  taattccaaa  aaaaaaaaaa  aaaaaaa  957

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<210> 114

<211> 161

<212> PRT

<213> Homo sapiens

<400> 114

```

Met Ser Ser Tyr Gln Gln Lys Gln Thr Phe Thr Pro Pro Pro Gln Leu
 1          5          10          15
Gln Gln Gln Gln Val Lys Gln Pro Ser Gln Pro Pro Pro Gln Glu Ile
      20          25          30
Phe Val Pro Thr Thr Lys Glu Pro Cys His Ser Lys Val Pro Gln Pro
      35          40          45
Gly Asn Thr Lys Ile Pro Glu Pro Gly Cys Thr Lys Val Pro Glu Pro
      50          55          60
Gly Cys Thr Lys Val Pro Glu Pro Gly Cys Thr Lys Val Pro Glu Pro
      65          70          75          80
Gly Cys Thr Lys Val Pro Glu Pro Gly Cys Thr Lys Val Pro Glu Pro
      85          90          95
Gly Tyr Thr Lys Val Pro Glu Pro Gly Ser Ile Lys Val Pro Asp Gln
      100          105          110
Gly Phe Ile Lys Phe Pro Glu Pro Gly Ala Ile Lys Val Pro Glu Gln
      115          120          125
Gly Tyr Thr Lys Val Pro Val Pro Gly Tyr Thr Lys Val Pro Glu Pro
      130          135          140
Cys Pro Ser Thr Val Thr Pro Gly Pro Ala Gln Gln Lys Thr Lys Gln
      145          150          155          160
Lys

```

<210> 115

<211> 506

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 8, 21, 31, 32, 58, 75, 89, 96, 99, 103, 122, 126, 147, 150, 158, 195, 210, 212, 219, 226, 246, 248, 249, 255, 258, 261, 263, 265, 275, 304, 317, 321, 331, 337, 340, 358, 371, 377, 380, 396, 450, 491

<223> n = A,T,C or G

<400> 115

| | | | | | | |
|------------|-------------|-------------|------------|------------|------------|-----|
| cattggtnc | ttcatttgc | ntggaagtgt | nnatctctaa | cagtggacaa | agttcccngt | 60 |
| gccttaaact | ctgtnacact | tttgggaant | gaaaantng | tantatgata | ggttattctg | 120 |
| angtanagat | gttctggata | ccattanatn | tgccccngt | gtcagaggct | catattgtgt | 180 |
| tatgtaaag | gtatntcatt | cgctactatn | antcaatng | aaatanggtc | tttgggttat | 240 |
| gaatantnng | cagcncanct | nanangctgt | ctgtngtatt | cattgtggtc | atagcacctc | 300 |
| acancattgt | aacctcnatc | nagtggagaca | nactagna | ttcctagtga | tggctcanga | 360 |
| ttccaaatgg | nctcatntcn | aatgtttaaa | agttanttaa | gtgtaagaaa | tacagactgg | 420 |
| atgttccacc | aactagtacc | tgtaatgacn | ggcctgtccc | aacacatctc | ccttttccat | 480 |
| gactgtggta | nccccgcatcg | gaaaaa | | | | 506 |

<210> 116

<211> 3079

<212> DNA

<213> Homo sapiens

<400> 116

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| ggatccccgg | gtttcctaaa | ccccccacag | agtcttgccc | aggccaaaga | gcaaggaaaa | 60 |
| ggtcaaaagg | cagaaaaaat | gctgagttag | gaggagctat | ggaaggataa | acctggcctt | 120 |
| aaagagggtca | aagtgggttta | tagggggcgc | tgagggtctc | ccacattctc | tggcctaaac | 180 |
| cttgacaggca | gatctgccc | gtgggtctctg | ggatagctgt | gccttcccta | acaaaaaat | 240 |
| tgtgcacaaa | aggatgaaac | tctattttcc | ctctagcaca | taaccaagaa | tataaggcta | 300 |
| cagattgcct | ttcccagagg | gaaaaccctg | cagcaaccctg | ctgcctggaa | aagtgtgaaga | 360 |
| gcagatcact | ggggaatcgt | ttgccccccg | ctgatggaca | gcttccccaa | gctccaaggg | 420 |
| caggtgctca | gcattgtaacg | tactgggatg | gttgtcaata | ctcctggtcc | tgtaagagtc | 480 |
| ccaggacact | gccatgccaa | tgccccctca | gttcttgcca | tcctttttgg | gctgctcaca | 540 |
| gccccagcct | ctatggtgaa | gacataacttg | ctagcagcgt | caccaacttg | ttgccaagag | 600 |
| atcagtgtct | gaaggcaagg | ttattttctaa | ctgagcagag | cctgccagga | agaaagcgtt | 660 |
| tgcacccact | accactgtgc | aggtgtgacc | ggtgagctca | cagctgcccc | ccaggcatgc | 720 |
| ccagcccaact | taatcatcac | agctcgacag | ctctctcgcc | cagcccagtt | ctggaaggga | 780 |
| taaaaagggg | catcaccggt | cctgggtaac | agagccacct | tctgcgtcct | gctgagctct | 840 |
| gttctctcca | gcacctccca | accactagt | gcctggttct | cttgctccac | caggaacaag | 900 |
| ccaccatgtc | tcgccagtca | agtgtgtctt | cggagcggg | gggcagtcgt | agcttcagca | 960 |
| ccgcctctgc | catcaccccg | tctgtctccc | gcaccagctt | cacctccgtg | tcccgggtccg | 1020 |
| ggggtggcgg | tgggtggtgg | ttcggcaggg | tcagccttgc | gggtgcttgt | ggagtgggtg | 1080 |
| gctatggcag | ccggagcctc | tacaacctgg | ggggctccaa | gaggatatcc | atcagcacta | 1140 |
| gtggtggcag | cttcagggaac | cggtttggtg | ctggtgctgg | aggcggctat | ggctttggag | 1200 |
| gtggtgccgg | tagtggtatt | ggtttcggcg | gtggagctgg | tgggtggctt | gggctcgggtg | 1260 |
| gcggagctgg | ctttggaggt | ggcttcgggtg | gccctggctt | tcctgtctgc | cctcctggag | 1320 |
| gtatccaaga | ggtcactgtc | aaccagagtc | tcctgactcc | cctcaacctg | caaatcgacc | 1380 |
| ccagcatcca | gagggtgagg | accgaggagc | gcgagcagat | caagaccctc | aacaataagt | 1440 |
| ttgcctcctt | catcgacaag | gtgcggttcc | tggagcagca | gaacaagggt | ctggaacaa | 1500 |
| agtggaccct | gctgcaggag | cagggcacca | agactgtgag | gcagaacctg | gagccgttgt | 1560 |
| tcgagcagta | catcaacaac | ctcaggaggc | agctggacag | catcgtgggg | gaacggggcc | 1620 |
| gcttggaactc | agagctgaga | aacatgcagg | acctggtgga | agacttcaag | aacaagtatg | 1680 |
| aggatgaaat | caacaagcgt | accactgctg | agaatgagtt | tgtgatgctg | aagaaggatg | 1740 |
| tagatgctgc | ctacatgaac | aagggtggagc | tggaggccaa | ggttgatgca | ctgatggatg | 1800 |
| agattaactt | catgaagatg | ttctttgatg | cggagctgtc | ccagatgcag | acgcatgtct | 1860 |
| ctgacacctc | agtggctctc | tccatggaca | acaaccgcaa | cctggacctg | gatagcatca | 1920 |
| tcgctgaggt | caaggcccag | tatgaggaga | ttgccaaccg | cagccggaca | gaagccgagt | 1980 |
| cctggtatca | gaccaagtat | gaggagctgc | agcagacagc | tggccggcat | ggcgatgacc | 2040 |
| tccgcaacac | caagcatgag | atctctgaga | tgaaccggat | gatccagagg | ctgagagccg | 2100 |


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agattgacaa tgtcaagaaa cagtgcgcca atctgcagaa cgccattgcg gatgccgagc 2160
agcgtgggga gctggccctc aaggatgcc a ggaacaagct ggccgagctg gaggaggccc 2220
tgcagaaggc caagcaggac atggcccggc tgctgcgtga gtaccaggag ctcatgaaca 2280
ccaagctggc cctggacgtg gagatcgcca cttaccgcaa gctgctggag ggcgaggaaat 2340
gcagactcag tggagaagga gttggaccag tcaacatctc tgttgtcaca agcagtgttt 2400
cctctggata tggcagtggc agtggctatg gcggtggcct cggtggaggt cttggcggcg 2460
gcctcggtgg aggtcttggc ggaggtagca gtggaagcta ctactccagc agcagtgggg 2520
gtgtcggcct aggtgggtggg ctcaagtgtg ggggctctgg cttcagtgca agcagttagcc 2580
gagggctggg ggtgggcttt ggcaagtggc ggggtagcag ctccagcgtc aaatttgtct 2640
ccaccacctc ctctcccgg aagagcttca agagctaaga acctgctgca agtcaactgcc 2700
ttccaagtgc agcaaccag cccatggaga ttgcctcttc taggcagttg ctcaagccat 2760
gttttatcct tttctggaga gtagtctaga ccaagccaat tgcagaacca cattctttgg 2820
ttcccaggag agccccattc ccagcccctg gtctcccgtg ccgcagttct atattctgct 2880
tcaaatcagc cttcaggttt cccacagcat ggcccctgct gacacgagaa cccaaagttt 2940
tcccaaattc aaatcatcaa aacagaatcc ccacccaat cccaaatttt gttttggttc 3000
taactacctc cagaatgtgt tcaataaaat gttttataat ataagctggg gtgcagaatt 3060
gttttttttt tctacccaa 3079

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<210> 117
<211> 6921
<212> DNA
<213> Homo sapiens

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<400> 117
gaattctgac tgtccactca aaacttctat tccgatcaaa gctatctgtg actacagaca 60
aattgagata accattttaca aagacgatga atgtgttttg gcgaataact ctcatcgtag 120
taaattggaag gtcatttagtc ctactgggaa tgaggctatg gtcccatctg tgtgcttcac 180
cgttcctcca ccaaacaaag aagcgggtga ccttgccaac agaattgagc aacagtatca 240
gaatgtcctg actctttggc atgagtctca cataaacatg aagagtgtag tatcctggca 300
ttatctcatc aatgaaattg atagaattcg agctagcaat gtggcttcaa taaagacaat 360
gctacctggg gaacatcagc aagttctaa gtaactacaa tctcgttttg aagattttct 420
ggaagatagc caggaatccc aagtcctttc aggtcagat ataacacaac tggaaaagga 480
ggttaatgta tgtgaagcag attatcaaga acttctttaa tctgcagaaa gagaggagca 540
agaggaatca gtttataatc tctacatctc tgaagttcga aacattagac ttcgggttaga 600
gaactgtgaa gatcggctga ttagacagat tcgaactccc ctggaaagag atgatttgca 660
tgaaagtgtg ttcagaatca cagaacagga gaaactaaag aaagagctgg aacgacttaa 720
agatgatttg ggaacaatca caaataagtg tgaggagttt ttcagtcaag cagcagcctc 780
ttcatcagtc cctaccctac gatcagagct taatgtggtc cttcagaaca tgaaccaagt 840
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cactcaagct gcagaagccc tcgtaaaact ctatgaaact aaactgtgtg aagaagaagc 960
agttatagct gacaagaata atattgagaa tctaataagt actttaagc aatggagatc 1020
tgaaagtagat gaaaagagac aggtattcca tgccttagag gatgagttgc agaaagctaa 1080
agccatcagt gatgaaatgt ttaaaacgta taaagaacgg gaccttgatt ttgactggca 1140
caaagaaaaa gcagatcaat tagttgaaag gtggcaaaat gttcatgtgc agattgacaa 1200
caggttacgg gacttagagg gcattggcaa atcactgaag tactacagag acacttacca 1260
tcctttagat agttggatcc agcaggttga aactactcag agaaagattc aggaaaatca 1320
gcctgaaat agtaaaaccc tagccacaca gttgaatcaa cagaagatgc tgggtgtccga 1380
aatagaaatg aaacagagca aaatggacga gtgtcaaaaa tatgcagAAC agtactcagc 1440
tacagtgaag gactatgaat tacaacaat gacctaccg gccatggtag attcacaaca 1500
aaaatctcca gtgaaacgcc gaagaatgca gagttcagca gatctcatta ttcaagagtt 1560
catggacctc aggaactgat atactgcctt ggtcactctc atgacacaat atattaaatt 1620
tgctgggtgat tcattgaaga ggctggaaga ggaggagatt aaaaggtgta aggagacttc 1680
tgaacatggg gcatattcag atctgcttca gcgtcagaag gcaacagtgc ttgagaatag 1740
caaacttaca ggaaagataa gtgagttgga aagaatggta gctgaactaa agaaacaaaa 1800

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| | | | | | | |
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| atcgagagac | ccagactgag | tgtgagtgga | ccgttgacac | ctccaagctg | gtgtttgatg | 6240 |
| ggctgaggaa | gaaggtgaca | gcaatgcagc | tctatgagtg | tcagctgac | gacaaaacaa | 6300 |
| ccttgagcaa | actattgaag | gggaagaagt | cagtggaa | agttgcttct | gaaatccagc | 6360 |
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| acagtgccat | agctcgggac | ctcattgact | tcgatgaccg | tcagcagata | tatgcagcag | 6600 |
| aaaaagctat | cactggtttt | gatgatccat | tttcaggcaa | gacagtatct | gtttcagaag | 6660 |
| ccatcaagaa | aaatttgatt | gatagagaaa | ccggaatgcg | cctgctggaa | gccagattg | 6720 |
| cttcaggggg | tgtagtagac | cctgtgaaca | gtgtcttttt | gccaaaagat | gtcgccttgg | 6780 |
| cccgggggct | gattgataga | gatttgtatc | gatccctgaa | tgatccccga | gatagtcaga | 6840 |
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| agaaacagg | gcagacatca | caaaagaata | ccctcaggaa | gcgtagagt | gtcatagttg | 7740 |
| accagaaaac | caataaagaa | atgtctgttc | aggaggccta | caagaagggc | ctaattgatt | 7800 |
| atgaaacctt | caaagaactg | tgtgagcagg | aatgtgaatg | ggaagaaata | accatcacgg | 7860 |
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<210> 120
 <211> 587
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 91, 131, 256, 263, 332, 392, 400, 403, 461, 496, 497, 499,
 510, 511, 518, 519, 539, 554, 560, 576
 <223> n = A,T,C or G

<400> 120
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 gggctgtgca ntccggtcag ggcgggaagg gaaatgcacc gctgcatgtg aacttacagc 180
 ccaggcggat gcccttccc ttagcactac ctggcctcct gcacccctc gcctcatgtt 240
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 ttcctttgaa aaagggcaaa actgaaaagg gcttttccta naaaaagaaa aaccagggaa 480
 ctttgccagg gcttcnntnt taccaaaacn ncttctcnng gatttttaat tccccattng 540
 gcctccactt accnngggcn atgcccacaa attaanaatt tcccatc 587

<210> 121
 <211> 619
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 260, 527, 560, 564, 566, 585, 599
 <223> n = A,T,C or G

<400> 121
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 tgcataaagc caatgtagtc cagtttctaa gatcatgttc caagctaact gaatccact 180
 tcaatacaca ctcatgaact cctgatggaa caataacagg cccaagcctg tggatgatg 240
 tgcacacttg ctagactcan aaaaaatact actctcataa atgggtggga gtattttgg 300
 gacaacctac tttgcttggc tgagtgaagg aatgatattc atatattcat ttattccatg 360
 gacatttagt tagtgctttt tatataccag gcatgatgct gaggtagact cttgtgtata 420
 tttccaaatt tttgtacagt cgctgcacat atttgaaatc atatattaag acttccaaaa 480
 aatgaagtcc ctggtttttc atggcaactt gatcagtaaa ggattcncct ctggttggtg 540
 cttaaaacat ctactataatn gttanatatg aattcctttt cccncctcc cgaaaaaana 600
 aagtgggtgg gaaaaaaaaa 619

<210> 122
 <211> 1475
 <212> DNA
 <213> Homo sapiens

<400> 122
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taaattggagg aacatgtgtg tccaacaagt acttctccaa cattcactgg tgcaactgcc 240
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tgggcctggg gaaacataat tactgcagga acccagacaa ccggaggcga ccctgggtgct 480
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<210> 123

<211> 2294

<212> DNA

<213> Homo sapiens

<400> 123

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gtccttcagc aaacgtacca tgcccacaga tctgatgctc ttcagctggg cctggggaaa 420
cataattact gcaggaaccc agacaaccgg aggcgaccct ggtgctatgt gcaggtgggc 480
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ggatgtgccc tgaaggacaa gccaggcgtc tacacgagag tctcacactt cttaccctgg 1320
atccgcagtc acaccaagga agagaatggc ctggccctct gaggggtccc agggaggaaa 1380

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cgggcaccac ccgcttttctt gctggttgct attttgagct agagtcacat ccacagctg 1440
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gaacgacaat agctttaccc tcaggcatag gcctgggtgc tggctgcca gacctctg 1560
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tgatttttct gatg 2294

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<210> 124

<211> 956

<212> DNA

<213> Homo sapiens

<400> 124

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cagattgaga acctcaagga ggagctggcc tacctgaaga agaaccacga ggaggagatg 180
aacgccctgc gaggccaggt ggtggtgag atcaatgtgg agatggacgc tgcccaggc 240
gtggacctga gccgcaccc ccaacgagatg cgtgaccagt atgagaagat ggagagaag 300
aacgcgaagg atgccgagga ttggttcttc agcaagacag aggaactgaa ccgcgaggtg 360
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atgcaggcct tggagataga gctgcagtcc cagctcagca tgaaagcatc cctggagggc 480
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ggcagcgtgg aggagcagct ggcccagctt cgtgcgaga tggagcagca gaaccaggaa 600
tacaaaatcc tgctggatgt gaagacgcgg ctggagcagg agattgccac ctaccgccgc 660
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caggtgcgta ccattgtgga agaggtccag gatggcaagg tcatctctc ccgcgagcag 780
gtccaccaga ccaccgctg aggactcagc taccgggcc ggccaccag gaggcaggga 840
cgcagccgcc ccactgccc cacagtctcc ggctctcca gcctagccc cctgcttcag 900
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<210> 125

<211> 486

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 16

<223> n = A,T,C or G

<400> 125

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ttggaaaact gcttttcttc tgagaacctt attctgaatg tcatcaactt taccaaacct 180

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| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| tctaagtcca | gagctaactt | agtactgttt | aagttactat | tgactgaatt | ttcttcattt | 240 |
| tctgttttagc | cagtgttacc | aaggtaagct | ggggaatgaa | gtataccaac | ttctttcaga | 300 |
| gcatttttagg | acattatggc | agcttttagaa | ggctgtcttg | tttctagcca | agggagagcc | 360 |
| agcgcagggtt | ttggatacta | gagaaagtca | tttgcttgta | ctattgccat | tttagaaagc | 420 |
| tctgatgtga | attcaaattt | tacctctgtt | acttaaagcc | aacaatttta | aggcagtagt | 480 |
| tttact | | | | | | 486 |

<210> 126

<211> 3552

<212> DNA

<213> Homo sapiens

<400> 126

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| catcccgatg | gccgcgctg | ggccccggcg | ctccgtgcgc | ggagccgtct | gcctgcatct | 120 |
| gctgctgacc | ctcgtgatct | tcagtctgtc | tggtgaagcc | tgcaaaaagg | tgatacttaa | 180 |
| tgtaccttct | aaactagagg | cagacaaaat | aattggcaga | gttaatttgg | aagagtgcct | 240 |
| cagggtctgca | gacctcatcc | ggtcaagtga | tcctgatttc | agagttctaa | atgatgggtc | 300 |
| agtgtacaca | gccagggctg | ttgcgctgtc | tgataagaaa | agatcattta | ccatatggct | 360 |
| ttctgacaaa | aggaaacaga | cacagaaaaga | ggttactgtg | ctgctagaac | atcagaagaa | 420 |
| ggtatcgaag | acaagacaca | ctagagaaac | tgttctcagg | cgtgccaaaga | ggagatgggc | 480 |
| acctattcct | tgtcttatgc | aagagaattc | cttgggcccc | ttcccattgt | ttcttcaaca | 540 |
| agttgaatct | gatgcagcac | agaactatac | tgtcttctac | tcaataagtg | gacgtggagt | 600 |
| tgataaagaa | cctttaaatt | tgttttatat | agaaagagac | actggaaatc | tattttgcac | 660 |
| tcggcctgtg | gatcgtgaag | aatatgatgt | ttttgatattg | attgcttatg | cgtcaactgc | 720 |
| agatggatat | tcagcagatc | tgccccctcc | actaccatc | agggtagagg | atgaaaatga | 780 |
| caaccaccct | gttttcacag | aagcaattta | taattttgaa | gttttggaaa | gtagttagacc | 840 |
| tggtactaca | gtgggggtg | tttgtgccac | agacagagat | gaaccggaca | caatgcatac | 900 |
| gcgcctgaaa | tacagcattt | tgcagcagac | accaaggcca | cctgggctct | tttctgtgca | 960 |
| tcccagcaca | ggcgtaatca | ccacagtctc | tcattattttg | gacagagagg | ttgtagacaa | 1020 |
| gtactcattg | ataatgaaag | tacaagacat | ggatggccag | ttttttggat | tgataggcac | 1080 |
| atcaactttg | atcataacag | taacagattc | aaatgataat | gcaccactt | tcagacaaaa | 1140 |
| tgcttatgaa | gcattttag | aggaaaatgc | attcaatgtg | gaaatcttac | gaatacctat | 1200 |
| agaagataag | gatttaatta | acactgccaa | ttggagagtc | aattttacca | ttttaaaagg | 1260 |
| aaatgaaaat | ggacatttca | aaatcagcac | agacaaaagaa | actaatgaag | gtgttctttc | 1320 |
| tgttgtaaag | ccactgaatt | atgaagaaaa | ccgtcaagtg | aacctggaaa | ttggagtaaa | 1380 |
| caatgaagcg | ccatttgcta | gagatattcc | cagagtgaac | gccttgaaca | gagccttggt | 1440 |
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| gcggattaaa | gaaaacttag | cagtgggggtc | aaagatcaac | ggctataagg | catatgacct | 1560 |
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| gaaaaatgct | ggatttcaag | aatataccat | tcctattact | gtaaaagaca | gggccggcca | 2040 |
| agctgcaaca | aaattattga | gagttaatct | gtgtgaatgt | actcatccaa | ctcagtgtcg | 2100 |
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<211> 754

<212> DNA

<213> Homo sapiens

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<211> 374

<212> DNA

<213> Homo sapiens

<400> 128

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 <213> Homo sapiens

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| gtggtgatgg | agtagtacct | gatacagagc | tggaaggcag | gatgcagcag | gctgagcagg | 2040 |
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 <213> Homo sapiens

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<212> DNA
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| ggacaggaaa | gaggtgctgg | gaggtgagtt | ttctttcagg | ggggtagttt | ggggtgaatt | 2520 |
| gctgctgtgg | ggtcagggtg | gggctgacca | cagccaaggc | cactgctttg | ggagggtctg | 2580 |
| cacgagagcc | caaggagccg | ctgagctgag | ctggccccgt | ctacctgccc | taggggtcat | 2640 |
| tgccggaggc | ctcgtggggc | tcattctttgc | tgtgtgectg | gtgggtttca | tgctgtaccg | 2700 |
| catgaagaag | aaggacgaag | gcagctactc | cttgaggagg | ccgaaacaag | ccaacggcgg | 2760 |
| ggcctaccag | aagcccacca | aacaggagga | attctatgcc | tgacgcggga | gccatgcgcc | 2820 |
| ccctccgccc | tgccactcac | taggccccca | cttgccctct | ccttgaagaa | ctgcaggccc | 2880 |
| tggcctcccc | tgccaccagg | ccacctcccc | agcattccag | ccccctcgtt | cgctcctgcc | 2940 |
| cacggagtcg | tgggtgtgct | gggagctcca | ctctgcttct | ctgacttctg | cctggagact | 3000 |
| tagggcacca | ggggtttctc | gcataggacc | tttccaccac | agccagcacc | tggcatcgca | 3060 |
| ccattctgac | tcggtttctc | caaactgaag | cagcctctcc | ccaggctccag | ctctggaggg | 3120 |
| gagggggatc | cgactgcttt | ggacctaaat | ggcctcatgt | ggctggaaga | tcctgcgggt | 3180 |
| gggcttgagg | gctcacacac | ctgtagcact | tactggtagg | accaagcatc | ttgggggggt | 3240 |
| ggccgctgag | tggcagggga | caggagtcac | tttgtttcgt | ggggaggtct | aatctagata | 3300 |
| tcgacttggt | tttgacacatg | tttctcttag | ttctttgttc | atagcccagt | agacctgttt | 3360 |
| acttctgagg | taagttaagt | aagttgattc | ggatatcccc | catcttgctt | ccctaatacta | 3420 |
| tggtcgggag | acagcatcag | ggttaagaag | actttttttt | ttttttttta | actaggagaa | 3480 |
| ccaaatctgg | aagccaaaat | gtaggcttag | tttgtgtgtt | gtctcttgag | tttgtcgctc | 3540 |
| atgtgtgcaa | cagggtatgg | actatctgtc | tgggtggccc | gttctggtgg | tctgttgga | 3600 |
| ggctggccag | tccaggtctc | cgtggggccg | ccgcctcttt | caagcagtcg | tgcctgtgtc | 3660 |
| catgcgctca | gggccatgct | gaggcctggg | ccgctgccac | gttggaagaag | cccgtgtgag | 3720 |
| aagtgaatgc | tgggactcag | ccttcagaca | gagaggactg | tagggagggc | ggcagggggc | 3780 |
| tggagatcct | cctgcaggct | cacgcccgct | ctcctgtggc | gccgtctcca | ggggctgctt | 3840 |
| cctcctggaa | attgacgagg | ggtgtcttgg | gcagagctgg | ctctgagcgc | ctccatccaa | 3900 |
| ggccagggtc | tccgttagct | cctgtggccc | caccctgggc | cctgggctgg | aatcaggaat | 3960 |
| attttccaaa | gagtgatagt | cttttgcttt | tggcaaaact | ctacttaata | caatgggttt | 4020 |
| ttccctgtac | agtagatttt | ccaaatgtaa | taaactttta | tataaagtag | tctgtgaatg | 4080 |
| ccactgcctt | cgttctcttc | ctctgtgctg | tgtgtgacgt | gaccggactt | ttctgcaaac | 4140 |
| accaacatgt | tgggaaactt | ggctcgaatc | tctgtgcctt | cgtctttccc | atggggaggg | 4200 |
| attctcggtc | cagggctcct | ctgtgtattt | gcttttttgt | tttggctgaa | attctcctgg | 4260 |
| aggtcggtag | gttcagccaa | ggttttataa | ggctgatgtc | aatttctgtg | ttgccaagct | 4320 |
| ccaagcccat | cttctaaatg | gcaaaggaag | gtggatggcc | ccagcacagc | ttgacctgag | 4380 |
| gctgtggtca | cagcggagggt | gtggagccga | ggcctacccc | ncagacacct | tggacatcct | 4440 |
| cctccacccc | ggctgcagag | gccaganncc | agcccagggt | cctgcactta | cttgcttatt | 4500 |
| tgacaacggt | tcagcgactc | cgttggccac | tccgagagtg | ggccagtcct | tggatcagag | 4560 |
| atgcaccacc | aagccaaggg | aacctgtgtc | cggatttcga | tactgcgact | ttctgcctgg | 4620 |
| agtgtatgac | tgcacatgac | tcgggggtgg | ggaaaggggt | cggctgacca | tgctcatctg | 4680 |
| ctggctccgtg | ggacggtncc | caagccagag | gtgggttcat | ttgtgtaacg | acaataaacg | 4740 |
| gtacttgtca | tttcgggcaa | cggctgctgt | ggtggtggtt | gagtcctctc | ttggcct | 4797 |

<210> 135

<211> 2856

<212> DNA

<213> Homo sapiens

<400> 135

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tagtcgcggg | tccccgagtg | agcacgccag | ggagcaggag | accaaacgac | gggggtcgga | 60 |
| gtcagagtcg | cagtgggagt | ccccggaccg | gagcacgagc | ctgagcggga | gagcgccgct | 120 |
| cgcacgcccg | tcgccaccgg | cgtaccgggc | gcagccagag | ccaccagcgc | agcgctgcca | 180 |
| tggagcccag | cagcaagaag | ctgacgggtc | gcctcatgct | ggctgtggga | ggagcagtcg | 240 |
| ttggctccct | gcagtttggc | tacaacactg | gagtcatcaa | tgccccccag | aaggtgatcg | 300 |
| aggagttcta | caaccagaca | tgggtccacc | gctatgggga | gagcatcctg | cccaccacgc | 360 |
| tcaccacgct | ctggtccctc | tcagtggcca | tcttttctgt | tgggggcatg | attggctcct | 420 |

| | | | | | | |
|-------------|------------|------------|------------|------------|-------------|------|
| tctctgtggg | ccttttctgt | aaccgctttg | gccggcggaa | ttcaatgctg | atgatgaacc | 480 |
| tgctggcctt | cgtgtccgcc | gtgtcatggg | gcttctcgaa | actgggcaag | tcctttgaga | 540 |
| tgctgaccc | gggcccgttc | atcatcggtg | tgtactgcgg | cctgaccaca | ggcttctgtg | 600 |
| ccatgtatgt | gggtgaagtg | tcacccacag | cctttctgtg | ggccctgggc | accctgcacc | 660 |
| agctgggcat | cgtcgtcggc | atcctcatcg | cccaggtgtt | cgccctggac | tccatcatgg | 720 |
| gcaacaagga | cctgtggccc | ctgctgctga | gcatcatctt | catcccggcc | ctgctgcagt | 780 |
| gcatcgtgct | gcccttctgc | cccagagatc | cccgttccct | gctcatcaac | cgcaacgagg | 840 |
| agaaccgggc | caagagtgtg | ctaaagaagc | tgcgcgggac | agctgacgtg | acccatgacc | 900 |
| tgcaggagat | gaaggaagag | agtcggcaga | tgatgcggga | gaagaaggtc | accatcctgg | 960 |
| agctgttccg | ctcccccgcc | taccgccagc | ccatcctcat | cgctgtggtg | ctgcagctgt | 1020 |
| cccagcagct | gtctggcatt | aacgtctgtt | tctattactc | cacgagcatc | ttcgagaagg | 1080 |
| cgggggtgca | gcagcctgtg | tatgccacca | ttggctccgg | tatcgtcaac | acggccttca | 1140 |
| ctgtcgtgtc | gctgtttgtg | gtggagcgag | caggccggcg | gaccctgcac | ctcataggcc | 1200 |
| tcgctggcat | ggcgggttgt | gccatactca | tgaccatcgc | gctagcactg | ctggagcagc | 1260 |
| taccctggat | gtcctatctg | agcatcgtgg | ccatctttgg | ctttgtggcc | ttctttgaag | 1320 |
| tgggtcctgg | ccccatccca | tggttcatcg | cttggaactc | cttcagccag | gggtccacgtc | 1380 |
| cagctgccat | tgcggttgca | ggcttctcca | actggacctc | aaatttcatt | gtgggcatgt | 1440 |
| gcttccagta | tgtggagcaa | ctgtgtggtc | cctacgtctt | catcatcttc | actgtgctcc | 1500 |
| tggttctgtt | cttcatcttc | acctacttca | aagttcctga | gactaaaggc | cggaccttcg | 1560 |
| atgagatcgc | ttccggcttc | cggcaggggg | gagccagcca | aagtgataag | acacccgagg | 1620 |
| agctgttcca | tcccctgggg | gctgattccc | aagtgtgagt | cgccccagat | caccagcccg | 1680 |
| gcctgtctcc | agcagcccta | aggatctctc | aggagcacag | gcagctggat | gagacttcca | 1740 |
| aacctgacag | atgtcagccg | agccgggccc | ggggctcctt | tctccagcca | gcaatgatgt | 1800 |
| ccagaagaat | attcaggact | taacggctcc | aggattttta | caaaagcaag | actgttgctc | 1860 |
| aaatctattc | agacaagcaa | caggttttat | aattttttta | ttactgattt | tgttattttt | 1920 |
| atatcagcct | gagtctcctg | tgcacacatc | ccaggcttca | cctgaatgg | ttccatgcct | 1980 |
| gaggggtggag | actaagccct | gtcagagcac | ttgccttctt | cacccagcta | atctgtaggg | 2040 |
| ctggacctat | gtcctaagga | cacactaatc | gaactatgaa | ctacaaagct | tctatcccag | 2100 |
| gaggtggcta | tggccacccg | ttctgctggc | ctggatctcc | ccactctagg | ggtcaggctc | 2160 |
| cattaggatt | tgcctcttcc | catctcttcc | tacccaacca | ctcaaattaa | tctttcttta | 2220 |
| cctgagacca | gttgggagca | ctggagtcca | gggaggagag | gggaaggggc | agtctgggct | 2280 |
| gccgggttct | agtctccttt | gcactgaggg | ccacactatt | accatgagaa | gagggcctgt | 2340 |
| gggagcctgc | aaactcactg | ctcaagaaga | catggagact | cctgccctgt | tgtgtataga | 2400 |
| tgcaagatat | ttatatatat | ttttggttgt | caatattaaa | tacagacact | aagttatagt | 2460 |
| atatctggac | aagccaactt | gtaaatacac | cacctcactc | ctgttactta | cctaaacaga | 2520 |
| tataaatggc | tggtttttag | aaacatgggt | ttgaaatgct | tgtggattga | gggtaggagg | 2580 |
| tttgatggg | agtgagacag | aagtaagtgg | ggttgcaacc | actgcaacgg | cttagacttc | 2640 |
| gactcaggat | ccagtccctt | acacgtacct | ctcatcagtg | tcctcttgct | caaaaatctg | 2700 |
| tttgatccct | gttaccacga | gaatatatac | attctttatc | ttgacattca | aggcatttct | 2760 |
| atcacatatt | tgatagttgg | tgttcaaaaa | aacactagtt | ttgtgccagc | cgtgatgctc | 2820 |
| aggcttgaaa | tgcattattt | ttgaatgtga | agggaa | | | 2856 |

<210> 136

<211> 356

<212> DNA

<213> Homo sapiens

<400> 136

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ggtggagcca | aatgaagaaa | atgaagatga | aagagacaga | cacctcagtt | tttctggatc | 60 |
| aggcattgat | gatgatgaag | attttatctc | cagcaccatt | tcaaccacac | cacgggcttt | 120 |
| tgaccacaca | aaacagaacc | aggactggac | tcagtggaac | ccaagccatt | caaaccgga | 180 |
| agtgtacttt | cagacaacca | caaggatgac | tgatgtagac | agaaatggca | ccactgctta | 240 |
| tgaaggaaac | tggaaaccag | aagcacaccc | tcccctcatt | caccatgagc | atcatgagga | 300 |
| agaagagacc | ccacattcta | caagcacaat | ccaggcaact | cctagtagta | caacgg | 356 |

<210> 137
 <211> 356
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 254, 264, 279, 281, 290, 328, 342
 <223> n = A,T,C or G

<400> 137
 gcaggtggag aagacatddd attgttcttg ggggtctctg aggccattg gtggggctgg 60
 gtcactggct gccccggaa cagggcgctg ctccatggct ctgcttggtg tagtctgtgg 120
 ctatgtctcc cagcaaggac agaaactcag aaaaatcaat cttcttatcc tcattcttgt 180
 cttttttctc aaagacatcg gcgaggtaat ttgtgccctt ttacctcgg ccgcgacca 240
 cgctaaggcc aaanttcag acanayggcc gggccggtnc nataggggan cccaacttgg 300
 ggacccaaac tctggcgcgg aaacacangg gcataagctt gnttcctgtg gggaaa 356

<210> 138
 <211> 353
 <212> DNA
 <213> Homo sapiens

<400> 138
 aggtccagtc ctccacttgg cctgatgaga gtggggagtg gcaagggacg tttctcctgc 60
 aatagacact tagatctctc ctttgtggga agaaaccacc tgtccatcca ctgactcttc 120
 tacattgatg tggaaattgc tgctgctacc accacctcct gaagaggctt ccctgatgcc 180
 aatgccagcc atcttggcat cctggccctc gagcaggctg cggttaagtag cgatctcctg 240
 ctccagccgt gtctttatgt caagcagcat cttgtactcc tggttctgag cctccatctc 300
 gcatcgagtc tcaactcagac ctcgscgsg mssmcgctam gccgaattcc agc 353

<210> 139
 <211> 371
 <212> DNA
 <213> Homo sapiens

<400> 139
 agcgtggtcg cggccgaggt ccatccgaag caagattgca gatggcagtg tgaagagaga 60
 agacatatcc tacacttcaa agctttggtg caattcccat cgaccagagt tgggccgacc 120
 agccttggaa aggtcactga aaaatcttca attggattat gttgacctct acctattca 180
 tttccagtg tctgtaaagc caggtgagga agtgatccca aaagatgaaa atggaaaaat 240
 actatttgac acagtggatc tctgtgccac gtgggaggcc gtggagaagt gtaaaagatgc 300
 aggattggac ctgccccggc ggccgctcga aagccgaatt ccagcacact ggcggccggt 360
 actagtggat c 371

<210> 140
 <211> 370
 <212> DNA
 <213> Homo sapiens

<400> 140
 tagcgtggtc gcggccgagg tccatctccc tttgggaact agggggctgc tgggtgggaaa 60
 tgggagccag ggcagatgtt gcattccttt gtgtccctgt aaatgtggga ctacaagaag 120

```

aggagctgcc  tgagtggtag  tttctcttcc  tggtaatcct  ctggcccagc  ctcatggcag  180
aatagaggta  tttttaggct  atttttgtaa  tatggcttct  ggtcaaaatc  cctgtgtagc  240
tgaattccca  agccctgcat  tgtacagccc  cccactcccc  tcaccaccta  ataaaggaa  300
agttaacact  caaaaaaaaa  aaaaaaacctg  cccggggcggc  cgctcgaaag  ccgaattcca  360
gcacactggc                                     370

```

```

<210> 141
<211> 371
<212> DNA
<213> Homo sapiens

```

```

<400> 141
tagcgtgggc  gcggccgagg  tctctgtgac  tgcctgtcac  agcccgatgg  taccagcgca  60
gggtgtaggc  agtgcaggag  cctcatcca  gtggcaggga  acaggggtca  tcactatccc  120
aaggagcttc  agggctctgg  tactcctcca  cagaatactc  ggagtattca  gagtactcat  180
catcctcagg  gggtagccgc  tcttctcct  ctgcatgaga  gacgcggagc  acaggcacag  240
catggagctg  ggagccggca  gtgtctgcag  cataactagg  gaggggtcgt  gatccagatg  300
cgatgaactg  gccctggcag  gcacagtgt  gactcatctc  ttggcgacct  gcccgggcgg  360
ccgctcgaag  c                                     371

```

```

<210> 142
<211> 343
<212> DNA
<213> Homo sapiens

```

```

<400> 142
gcgttttgag  gccaatggtg  taaaaggaaa  tatcttcaca  taaaaactag  atggaagcat  60
gtgcagaaac  ctctttgtga  tgtttgcttt  caactcacag  agttgaacat  tccttttcat  120
agagcagttt  tgaaacacte  tttttagtaa  tttgcaagcg  gatgattgga  tcgctatgag  180
gtcttcattg  gaaacgggat  acctttacat  aaaaactaga  cagtagcatt  ctcaaaaatt  240
tctttgggat  gtgggcattc  aaccacaga  ggagaacttc  atttgataga  gcagttttga  300
aacacccttt  ttgtagaatc  tacaggtgga  catttagagt  gct                                     343

```

```

<210> 143
<211> 354
<212> DNA
<213> Homo sapiens

```

```

<400> 143
aggtctgatg  gcagaaaaac  tcagactgtc  tgcaacttta  cagatggtgc  attggttcag  60
catcaggagt  gggatgggaa  ggaaagcaca  ataacaagaa  aattgaaaga  tgggaaatta  120
gtggtggagt  gtgtcatgaa  caatgtcacc  tgtactcgga  tctatgaaaa  agtagaataa  180
aaattccatc  atcacttttg  acaggagtta  attaagagaa  tgaccaagct  cagttcaatg  240
agcaaactct  catactgttt  ctttcttttt  ttttctatta  ctgtgttcaa  ttatctttat  300
cataaacatt  ttacatgcag  ctatttcaaa  gtgtgttgga  ttaattagga  tcat                                     354

```

```

<210> 144
<211> 353
<212> DNA
<213> Homo sapiens

```

```

<400> 144
ggtcaaggac  ctggggggacc  cccagggtcca  gcagccacat  gattctgcag  cagacagggg  60
cctagagcac  atctggatct  cagccccacc  cctggcaacc  tgcttgcta  gagaactccc  120

```

```

aagatgacag actaagtagg attctgccat ttagaataat tctggtatcc tgggcgttgc 180
gttaagttgc ttaactttca ttctgtctta cgatagtctt cagaggtggg aacagatgaa 240
gaaaccatgc cccagagaag gttaagtgc ttctctctta tggagccagt gttccaacct 300
aggtttgcct gataccagac ctgtggcccc acctcccatg caggtctctg tgg          353

```

```

<210> 145
<211> 371
<212> DNA
<213> Homo sapiens

```

```

<400> 145
caggtctgtc ataaactggg ctggagtttc tgacgactcc ttgttcacca aatgcacccat 60
ttcctgagac ttgctggcct ctccgttgag tccacttggc tttctgtcct ccacagctcc 120
attgccactg ttgatcacta gctttttctt ctgccacac cttcttcgac tgttgactgc 180
aatgcaaaact gcaagaatca aagccaaggc caagagggat gccaagatga tcagccattc 240
tggaatttgg ggtgtcctta taggaccaga gggtgtgttt gctccacctt cttgactccc 300
atgtgagacc tcggccgcga ccacgctaag ccgaattcca gcacactggc ggcccgttac 360
tagtggatcc g                                     371

```

```

<210> 146
<211> 355
<212> DNA
<213> Homo sapiens

```

```

<400> 146
ggctctccgt cctcttccca gaggtgtcgg ggcttggccc cagcctccat ctctgtctct 60
caggatggcg agtagcagcg gctccaaggc tgaattcatt gtcggaggga aatataaaact 120
ggtacggaag atcgggtctg gctccttcgg ggacatctat ttggcgatca acatcaccaa 180
cggcgaggaa gtggcagtga agctagaatc tcagaaggcc aggcattccc agttgctgta 240
cgagagcaag ctctataaga ttcttcaagg tgggggttggc atccccaca tacggtggta 300
tggtcaggaa aaagactaca atgtactagt catggatctt ctgggacctc gcctc          355

```

```

<210> 147
<211> 355
<212> DNA
<213> Homo sapiens

```

```

<400> 147
ggtctgttac aaaatgaaga cagacaacac aacatttact ctgtggagat atcctactca 60
tactatgcac gtgctgtgat tttgaacata actcgtccca aaaacttgtc acgatcatcc 120
tgacttttta ggttggctga tccatcaatc ttgcaactca ctgttacttc tttcccagtg 180
ttgttaggag caaagctgac ctgaacagca accaatggct gtagataccc aacatgcagt 240
tttttcccat aatatgggaa atattttaag tctatcattc cattatgagg ataaactgct 300
acatttggtg tatcttcatt ctttgaaaca caatctatcc ttggcactcc ttcag          355

```

```

<210> 148
<211> 369
<212> DNA
<213> Homo sapiens

```

```

<400> 148
aggtctctct cccctctctc ctctcctgcc agccaagtga agacatgctt acttcccctt 60
caccttcctt catgatgtgg gaagagtgtc gcaaccagc cctagccaac accgcatgag 120
agggagtgtg ccgagggtct ctgagaaggt ttctctcaca tctagaaaga agcgcttaag 180

```

```

atgtggcagc ccctcttctt caagtggctc ttgtcctggt gccctgggag ttctcaaatt 240
gctgcagcag cctccatcca gcctgaggat gacatcaata cacagaggaa gaagagtcag 300
gaaaagatga gagaagttac agactctcct gggcgacccc gagagcttac cattcctcag 360
acttcttca                                     369

```

```

<210> 149
<211> 620
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 169, 171, 222, 472, 528, 559, 599
<223> n = A,T,C or G

```

```

<400> 149
actagtcaaa aatgctaaaa taatttggga gaaaatattt ttttaagtagt gttatagttt 60
catgtttatc ttttattatg ttttgtgaag ttgtgtcttt tcactaatta cctatactat 120
gccaatattt ccttataatc atccataaca ttatactac atttgaana naatatgcac 180
gtgaaactta acactttata aggtaaaaat gaggtttcca anatttaata atctgatcaa 240
gttcttggtta ttccaaaata gaatggactt ggtctgttaa gggctaagga gaagaggaag 300
ataagggttaa aagtgtgttaa tgaccaaaca ttctaaaaga aatgcaaaaa aaaagtttat 360
tttcaagcct tcgaactatt taaggaaaagc aaaatcattt cctaaatgca tatcatttgt 420
gagaatttct cattaatatc ctgaatcatt catttcacta aggtcatgt tnactccgat 480
atgtctctaa gaaagtacta ttcatgggc caaacctggt tgccatantt gggtaaaggc 540
tttcccttaa gtgtgaaant atttaaaatg aaattttcct ctttttaaaa attccttana 600
agggttaagg gtgttgggga                                     620

```

```

<210> 150
<211> 371
<212> DNA
<213> Homo sapiens

```

```

<400> 150
ggtccgatca aaacctgcta cctccccaag actttactag tgccgataaa ctttctcaaa 60
gagcaaccag tatcacttcc ctgtttataa aacctctaac catctctttg ttctttgaac 120
atgctgaaaa ccacctgggc tgcattgatg cccgaatttg yaattctttt ctctcaaattg 180
aaaatttaaa tttagggtatt catttctata ttttcacata ttagatatta ttatttcctt 240
atatgtgttaa ggtgaaattt atgggtatttg agtgtgcaag aaaatatatt tttaaagctt 300
tcatttttcc ccagtgtaat gatthagaaat tttttatgta aatatacaga atgttttttc 360
ttacttttat a                                     371

```

```

<210> 151
<211> 4655
<212> DNA
<213> Homo sapiens

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<400> 151
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ataacacaga ccacgcgcag aacagcgtca cggcgccctc gccctacgca cagcccagct 300
ccaccttcga tgctctctct ccatcaccgc ccatcccttc caacaccgac taccagggcc 360

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| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|------------|------|
| cgacagttt | cgacgtgtcc | ttccagcagt | cgagcaccgc | caagtcggcc | acctggacgt | 420 |
| attccactga | actgaagaaa | ctctactgcc | aaattgcaaa | gacatgcccc | atccagatca | 480 |
| aggtgatgac | cccacctcct | cagggagctg | ttatccgcgc | catgcctgtc | tacaaaaaag | 540 |
| ctgagcacgt | cacggagggtg | gtgaagcggg | gccccacca | tgagctgagc | cgtgaattca | 600 |
| acgagggaca | gattgcccct | yctagtcatt | tgattcgagt | agaggggaac | agccatgccc | 660 |
| agtatgtaga | agatcccatc | acaggaagac | agagtgtgct | ggtaccttat | gagccacccc | 720 |
| aggttggcac | tgaattcacg | acagtcttgt | acaatttcat | gtgtaacagc | agttgtgttg | 780 |
| gagggatgaa | ccgccgtcca | attttaatca | ttgttactct | ggaaaccaga | gatgggcaag | 840 |
| tcctggggccg | acgctgcttt | gaggcccgga | tctgtgcttg | cccaggaaga | gacaggaagg | 900 |
| cggatgaaga | tagcatcaga | aagcagcaag | tttcggacag | tacaaagaac | ggtgatggta | 960 |
| cgaagcggcc | gtttcgtcag | aacacacatg | gtatccagat | gacatccatc | aagaaacgaa | 1020 |
| gatccccaga | tgatgaactg | gtatacttac | cagtgaaggg | ccgtgagact | tatgaaatgc | 1080 |
| tggtgaagat | caaagagtcc | ctggaactca | tgcagtacct | tcttcagcac | acaattgaaa | 1140 |
| cgtacaggca | acagcaacag | cagcagcacc | agcacttact | tcagaaacag | acctcaatac | 1200 |
| agtctccatc | ttcatatggt | aacagctccc | cacctctgaa | caaaatgaac | agcatgaaca | 1260 |
| agctgccttc | tgtgagccag | cttatcaacc | ctcagcagcg | caacgccctc | actcctacaa | 1320 |
| ccattcctga | tggcatggga | gccaacattc | ccatgatggg | caccacatg | ccaatggctg | 1380 |
| gagacatgaa | tggactcagc | cccacccagg | cactccctcc | cccactctcc | atgccatcca | 1440 |
| cctcccactg | cacacccccca | cctccgtatc | ccacagattg | cagcattgtc | agtttcttag | 1500 |
| cgaggttggg | ctgttcatca | tgtctggact | atttcacgac | ccaggggctg | accaccatct | 1560 |
| atcagattga | gcattactcc | atggatgac | tggcaagtct | gaaaatccct | gagcaatttc | 1620 |
| gacatgcgat | ctggaagggc | atcctggacc | accggcagct | ccacgaatc | tcctcccctt | 1680 |
| ctcatctcct | gcggaccccc | agcagtgcct | ctacagtcag | tgtgggctcc | agtgagacc | 1740 |
| ggggtgagcg | tgttattgat | gctgtgcgat | tcacctccg | ccagaccatc | tccttcccac | 1800 |
| cccgagatga | gtggaatgac | ttcaactttg | acatggatgc | tcgccgcaat | aagcaacagc | 1860 |
| gcatacaaga | ggagggggag | tgagcctcac | catgtgagct | cttcctatcc | ctctcctaac | 1920 |
| tgccagcccc | ctaaaagcac | tcctgcttaa | tcttcaaagc | cttctcccta | gctcctcccc | 1980 |
| ttcctcttgt | ctgatttctt | aggggaagga | gaagtaagag | gcttacttct | taccctaacc | 2040 |
| atctgacctg | gcatactaatt | ctgattctgg | ctttaagcct | tcaaaactat | agcttgacga | 2100 |
| actgtagctt | gccatggcta | ggtagaagtg | agcaaaaaag | agttgggtgt | ctccttaagc | 2160 |
| tgagagagatt | tctcattgac | ttttataaag | catgttcacc | cttatagtct | aagactatat | 2220 |
| atataaatgt | ataaatatac | agtatagatt | tttgggtggg | gggcattgag | tattgtttaa | 2280 |
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| ttttggatgg | cttgtctata | ctccttccct | taaggggtat | catgtatggt | gataggtatc | 2400 |
| tagagcttaa | tgtacatgt | gagtgcgat | gatgtacaga | ttctttcagt | tctttggatt | 2460 |
| ctaaatacat | gccacatcaa | acctttgagt | agatccattt | ccattgctta | ttatgtaggt | 2520 |
| aagactgtag | atatgtattc | ttttctcagt | gttgggtatat | tttatattac | tgacatttct | 2580 |
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| caaacgtcct | ctttagtttt | tgggtgggaa | tgaggaaaat | tcttaaaagg | cccatagcag | 2700 |
| ccagttcaaa | aacacccgac | gtcatgtatt | tgagcatatc | agtaaccccc | ttaaatttaa | 2760 |
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| actgtatcat | tttctttttt | aaccggtaag | agtttcagtt | tgttggaag | taactgtgag | 3300 |
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| agcaagagat | aagtctttca | tggctgctgt | tgcttaaacc | acttaaacga | agagttccct | 3420 |
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| ttttttgcat | gcatgcaaat | gagctctgaa | atcttcccat | gcattctggt | caagggctgt | 3540 |
| cattgcacat | aagcttccat | tttaattttta | aagtgcaaaa | gggccagcgt | ggctctaaaa | 3600 |

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ggtaatgtgt ggattgcctc tgaaaagtgt gtatatattt tgtgtgaaat tgcatacttt 3660
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<210> 152

<211> 586

<212> PRT

<213> Homo sapiens

<400> 152

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20     25     30
Gly Ser Ser Ser Thr Ser Pro Tyr Asn Thr Asp His Ala Gln Asn Ser
35     40     45
Val Thr Ala Pro Ser Pro Tyr Ala Gln Pro Ser Ser Thr Phe Asp Ala
50     55     60
Leu Ser Pro Ser Pro Ala Ile Pro Ser Asn Thr Asp Tyr Pro Gly Pro
65     70     75     80
His Ser Phe Asp Val Ser Phe Gln Gln Ser Ser Thr Ala Lys Ser Ala
85     90     95
Thr Trp Thr Tyr Ser Thr Glu Leu Lys Lys Leu Tyr Cys Gln Ile Ala
100    105    110
Lys Thr Cys Pro Ile Gln Ile Lys Val Met Thr Pro Pro Pro Gln Gly
115    120    125
Ala Val Ile Arg Ala Met Pro Val Tyr Lys Lys Ala Glu His Val Thr
130    135    140
Glu Val Val Lys Arg Cys Pro Asn His Glu Leu Ser Arg Glu Phe Asn
145    150    155    160
Glu Gly Gln Ile Ala Pro Ser Ser His Leu Ile Arg Val Glu Gly Asn
165    170    175
Ser His Ala Gln Tyr Val Glu Asp Pro Ile Thr Gly Arg Gln Ser Val
180    185    190
Leu Val Pro Tyr Glu Pro Pro Gln Val Gly Thr Glu Phe Thr Thr Val
195    200    205
Leu Tyr Asn Phe Met Cys Asn Ser Ser Cys Val Gly Gly Met Asn Arg
210    215    220
Arg Pro Ile Leu Ile Ile Val Thr Leu Glu Thr Arg Asp Gly Gln Val

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225          230          235          240
Leu Gly Arg Arg Cys Phe Glu Ala Arg Ile Cys Ala Cys Pro Gly Arg
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Asp Arg Lys Ala Asp Glu Asp Ser Ile Arg Lys Gln Gln Val Ser Asp
      260          265          270
Ser Thr Lys Asn Gly Asp Gly Thr Lys Arg Pro Phe Arg Gln Asn Thr
      275          280          285
His Gly Ile Gln Met Thr Ser Ile Lys Lys Arg Arg Ser Pro Asp Asp
      290          295          300
Glu Leu Val Tyr Leu Pro Val Arg Gly Arg Glu Thr Tyr Glu Met Leu
305          310          315          320
Val Lys Ile Lys Glu Ser Leu Glu Leu Met Gln Tyr Leu Leu Gln His
      325          330          335
Thr Ile Glu Thr Tyr Arg Gln Gln Gln Gln Gln His Gln His Leu
      340          345          350
Leu Gln Lys Gln Thr Ser Ile Gln Ser Pro Ser Ser Tyr Gly Asn Ser
      355          360          365
Ser Pro Pro Leu Asn Lys Met Asn Ser Met Asn Lys Leu Pro Ser Val
      370          375          380
Ser Gln Leu Ile Asn Pro Gln Gln Arg Asn Ala Leu Thr Pro Thr Thr
385          390          395          400
Ile Pro Asp Gly Met Gly Ala Asn Ile Pro Met Met Gly Thr His Met
      405          410          415
Pro Met Ala Gly Asp Met Asn Gly Leu Ser Pro Thr Gln Ala Leu Pro
      420          425          430
Pro Pro Leu Ser Met Pro Ser Thr Ser His Cys Thr Pro Pro Pro Pro
      435          440          445
Tyr Pro Thr Asp Cys Ser Ile Val Ser Phe Leu Ala Arg Leu Gly Cys
450          455          460
Ser Ser Cys Leu Asp Tyr Phe Thr Thr Gln Gly Leu Thr Thr Ile Tyr
465          470          475          480
Gln Ile Glu His Tyr Ser Met Asp Asp Leu Ala Ser Leu Lys Ile Pro
      485          490          495
Glu Gln Phe Arg His Ala Ile Trp Lys Gly Ile Leu Asp His Arg Gln
      500          505          510
Leu His Glu Phe Ser Ser Pro Ser His Leu Leu Arg Thr Pro Ser Ser
      515          520          525
Ala Ser Thr Val Ser Val Gly Ser Ser Glu Thr Arg Gly Glu Arg Val
      530          535          540
Ile Asp Ala Val Arg Phe Thr Leu Arg Gln Thr Ile Ser Phe Pro Pro
545          550          555          560
Arg Asp Glu Trp Asn Asp Phe Asn Phe Asp Met Asp Ala Arg Arg Asn
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Lys Gln Gln Arg Ile Lys Glu Glu Gly Glu
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<210> 153
<211> 2007
<212> DNA
<213> Homo sapiens

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<400> 153
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cttgacaaa tgccctggag ctccagcgcc ttggagctga ggtggtcaaa ggtgacctga 240
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<210> 154

<211> 2148

<212> DNA

<213> Homo sapiens

<400> 154

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<210> 155

<211> 153

<212> PRT

<213> Homo sapiens

<400> 155

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 20          25          30
Pro Met Gly Asp Val Pro Met Asp Gly Ile Ser Val Ala Asp Ile Gly
 35          40          45
Ala Ala Val Ser Ser Ile Phe Asn Ser Pro Glu Glu Phe Leu Gly Lys
 50          55          60
Ala Val Gly Leu Ser Ala Glu Ala Leu Thr Ile Gln Gln Tyr Ala Asp
 65          70          75          80
Val Leu Ser Lys Ala Leu Gly Lys Glu Val Arg Asp Ala Lys Ile Thr
 85          90          95
Pro Glu Ala Phe Glu Lys Leu Gly Phe Pro Ala Ala Lys Glu Ile Ala
100          105          110
Asn Met Cys Arg Phe Tyr Glu Met Lys Pro Asp Arg Asp Val Asn Leu
115          120          125
Thr His Gln Leu Asn Pro Lys Val Lys Ser Phe Ser Gln Phe Ile Ser
130          135          140
Glu Asn Gln Gly Ala Phe Lys Gly Met
145          150

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<210> 156

<211> 128

<212> PRT

<213> Homo sapiens

<400> 156

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          20          25          30
Pro Met Gly Asp Val Pro Met Asp Gly Ile Ser Val Ala Asp Ile Gly
      35          40          45
Ala Ala Val Ser Ser Ile Phe Asn Ser Pro Glu Glu Phe Leu Gly Lys
      50          55          60
Ala Val Gly Leu Ser Ala Glu Ala Leu Thr Ile Gln Gln Tyr Ala Asp
65          70          75          80
Val Leu Ser Lys Ala Leu Gly Lys Glu Val Arg Asp Ala Lys Thr Ile
          85          90          95
Cys Ala Ile Asp Asp Gln Lys Thr Val Glu Glu Gly Phe Met Glu Asp
          100         105         110
Val Gly Leu Ser Trp Ser Leu Arg Glu His Asp His Val Ala Gly Ala
      115          120          125

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<210> 157

<211> 424

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 320, 322

<223> n = A,T,C or G

<400> 157

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aattcagtca ccactgttat attaccttct ccaggaaccc tccagtgggg aaggctgcga 180
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agcccagaaa cttctctgcn gnatctggct tgtccatctg gtctaagggt gctgcttctt 360
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tgct

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<210> 158

<211> 2099

<212> DNA

<213> Homo sapiens

<400> 158

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ccgcgcagag cccgcgccag ggccgcgggc cgcagagcag ttaaaacgtg caggcaccag 180
aaggcacttc ctgtcggtga agaagacctg tctccggtgt cacgggcatc ctgtgttttg 240
caaacggggc tgacctcctt tctgggggag caggaagggt caggggaagga aaagaagtac 300
agaagatctg gctaaacaat ttctgtatgg cgaaagaaaa attctaactt gtacgccctc 360
ttcatgcatc ttaattcaa tttgaatatt ccaggcgaca tcctcactga ccgagcaaag 420

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<210> 159

<211> 291

<212> PRT

<213> Homo sapiens

<400> 159

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Val Met Ile Leu Val Val Ala Ala Gln Glu Val Trp Gly Asp Glu Gln
 35           40           45
Glu Asp Phe Val Cys Asn Thr Leu Gln Pro Gly Cys Lys Asn Val Cys
 50           55           60
Tyr Asp His Phe Phe Pro Val Ser His Ile Arg Leu Trp Ala Leu Gln
 65           70           75           80
Leu Ile Phe Val Ser Thr Pro Ala Leu Leu Val Ala Met His Val Ala
 85           90           95
Tyr Tyr Arg His Glu Thr Thr Arg Lys Phe Arg Arg Gly Glu Lys Arg
 100          105          110
Asn Asp Phe Lys Asp Ile Glu Asp Ile Lys Lys Gln Lys Val Arg Ile
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Glu Gly Ser Leu Trp Trp Thr Tyr Thr Ser Ser Ile Phe Phe Arg Ile
 130          135          140
Ile Phe Glu Ala Ala Phe Met Tyr Val Phe Tyr Phe Leu Tyr Asn Gly

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| | | | | | | |
|---|-----|-----|-----|-----|-----|-----|
| 145 | | 150 | | 155 | | 160 |
| Tyr His Leu Pro Trp Val Leu Lys Cys Gly Ile Asp Pro Cys Pro Asn | | | | | | |
| | 165 | | 170 | | 175 | |
| Leu Val Asp Cys Phe Ile Ser Arg Pro Thr Glu Lys Thr Val Phe Thr | | | | | | |
| | 180 | | 185 | | 190 | |
| Ile Phe Met Ile Ser Ala Ser Val Ile Cys Met Leu Leu Asn Val Ala | | | | | | |
| | 195 | | 200 | | 205 | |
| Glu Leu Cys Tyr Leu Leu Leu Lys Val Cys Phe Arg Arg Ser Lys Arg | | | | | | |
| | 210 | | 215 | | 220 | |
| Ala Gln Thr Gln Lys Asn His Pro Asn His Ala Leu Lys Glu Ser Lys | | | | | | |
| | 225 | | 230 | | 235 | |
| Gln Asn Glu Met Asn Glu Leu Ile Ser Asp Ser Gly Gln Asn Ala Ile | | | | | | |
| | 245 | | 250 | | 255 | |
| Thr Gly Ser Gln Ala Lys His Phe Lys Val Lys Cys Ser Cys Val Ile | | | | | | |
| | 260 | | 265 | | 270 | |
| Arg Arg Leu Leu Ser Ser Pro Glu Gly Asn Thr Asn Leu Lys Val Pro | | | | | | |
| | 275 | | 280 | | 285 | |
| Ser Val Ala | | | | | | |
| 290 | | | | | | |

<210> 160

<211> 3951

<212> DNA

<213> Homo sapiens

<400> 160

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| gaggcttctc | tacaacatga | cccaaaggag | cattgcaggt | cctattttgc | acctgaagtt | 120 |
| tgtgactctc | ctggttgcc | taagtgcaga | actcccattc | ctgggagctg | gagtacagct | 180 |
| tcaagacaat | gggtataatg | gattgctcat | tgcaattaat | cctcagggtac | ctgagaatca | 240 |
| gaacctcatc | tcaaacatta | aggaaatgat | aactgaagct | tcattttacc | tatttaatgc | 300 |
| taccaagaga | agagtatttt | tcagaaatat | aaagatttta | atacctgcca | catggaaagc | 360 |
| taataataac | agcaaaataa | aacaagaatc | atatgaaaag | gcaaagtgtc | tagtgactga | 420 |
| ctggtatggg | gcacatggag | atgatccata | caccctacaa | tacagagggg | gtggaaaaga | 480 |
| gggaaaatac | attcatttca | cacctaat | cctactgaat | gataacttaa | cagctggcta | 540 |
| cggatcacga | ggccgagtg | ttgtccatga | atgggcccac | ctccgttggg | gtgtgttcga | 600 |
| tgagtataac | aatgacaaac | ctttctacat | aatgggcaa | aatcaaatta | aagtgacaag | 660 |
| gtgttcatct | gacatcacag | gcatttttgt | gtgtgaaaaa | ggtccttgcc | ccaagaaaaa | 720 |
| ctgtattatt | agtaagcttt | ttaaagaagg | atgcaccttt | atctacaata | gcacccaaaa | 780 |
| tgcaactgca | tcaataatgt | tcatgcaaa | tttatcttct | gtggttgaat | tttqtaatgc | 840 |
| aagtaccac | aaccaagaag | caccaaacct | acagaaccag | atgtgcagcc | tcagaagtgc | 900 |
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| gcttccacct | cctcccacat | tctcgcttgt | agaggctgg | gacaaagtgg | tctgtttagt | 1020 |
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| cagcaaagga | gagatcagag | cccagctaca | ccaaattaac | agcaatgatg | atcgaaagtt | 1200 |
| gctggtttca | tatctgcccc | ccactgtatc | agctaaaaca | gacatcagca | tttgttcagg | 1260 |
| gcttaagaaa | ggatttgagg | tggttgaaaa | actgaatgga | aaagcttatg | gctctgtgat | 1320 |
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| cagtggttca | acaattcact | ccattgccct | gggttcattc | gcagcccaa | atctggagga | 1440 |
| attatcacgt | cttacaggag | gtttaaagtt | ctttgttcca | gatatatcaa | actccaatag | 1500 |
| catgattgat | gctttcagta | gaatttcctc | tggaactgga | gacattttcc | agcaacatat | 1560 |
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<210> 161

<211> 943

<212> PRT

<213> Homo sapiens

<400> 161

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      20             25             30
Val Gln Leu Gln Asp Asn Gly Tyr Asn Gly Leu Leu Ile Ala Ile Asn
      35             40             45
Pro Gln Val Pro Glu Asn Gln Asn Leu Ile Ser Asn Ile Lys Glu Met
      50             55             60

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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Thr | Glu | Ala | Ser | Phe | Tyr | Leu | Phe | Asn | Ala | Thr | Lys | Arg | Arg | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Phe | Phe | Arg | Asn | Ile | Lys | Ile | Leu | Ile | Pro | Ala | Thr | Trp | Lys | Ala | Asn |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Asn | Asn | Ser | Lys | Ile | Lys | Gln | Glu | Ser | Tyr | Glu | Lys | Ala | Asn | Val | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Thr | Asp | Trp | Tyr | Gly | Ala | His | Gly | Asp | Asp | Pro | Tyr | Thr | Leu | Gln |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Tyr | Arg | Gly | Cys | Gly | Lys | Glu | Gly | Lys | Tyr | Ile | His | Phe | Thr | Pro | Asn |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Phe | Leu | Leu | Asn | Asp | Asn | Leu | Thr | Ala | Gly | Tyr | Gly | Ser | Arg | Gly | Arg |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Val | Phe | Val | His | Glu | Trp | Ala | His | Leu | Arg | Trp | Gly | Val | Phe | Asp | Glu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Tyr | Asn | Asn | Asp | Lys | Pro | Phe | Tyr | Ile | Asn | Gly | Gln | Asn | Gln | Ile | Lys |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Val | Thr | Arg | Cys | Ser | Ser | Asp | Ile | Thr | Gly | Ile | Phe | Val | Cys | Glu | Lys |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gly | Pro | Cys | Pro | Gln | Glu | Asn | Cys | Ile | Ile | Ser | Lys | Leu | Phe | Lys | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gly | Cys | Thr | Phe | Ile | Tyr | Asn | Ser | Thr | Gln | Asn | Ala | Thr | Ala | Ser | Ile |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Met | Phe | Met | Gln | Ser | Leu | Ser | Ser | Val | Val | Glu | Phe | Cys | Asn | Ala | Ser |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Thr | His | Asn | Gln | Glu | Ala | Pro | Asn | Leu | Gln | Asn | Gln | Met | Cys | Ser | Leu |
| | | | 260 | | | | | 265 | | | | | | 270 | |
| Arg | Ser | Ala | Trp | Asp | Val | Ile | Thr | Asp | Ser | Ala | Asp | Phe | His | His | Ser |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Phe | Pro | Met | Asn | Gly | Thr | Glu | Leu | Pro | Pro | Pro | Pro | Thr | Phe | Ser | Leu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Val | Glu | Ala | Gly | Asp | Lys | Val | Val | Cys | Leu | Val | Leu | Asp | Val | Ser | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Lys | Met | Ala | Glu | Ala | Asp | Arg | Leu | Leu | Gln | Leu | Gln | Gln | Ala | Ala | Glu |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Phe | Tyr | Leu | Met | Gln | Ile | Val | Glu | Ile | His | Thr | Phe | Val | Gly | Ile | Ala |
| | | 340 | | | | | 345 | | | | | | 350 | | |
| Ser | Phe | Asp | Ser | Lys | Gly | Glu | Ile | Arg | Ala | Gln | Leu | His | Gln | Ile | Asn |
| | 355 | | | | | 360 | | | | | 365 | | | | |
| Ser | Asn | Asp | Asp | Arg | Lys | Leu | Leu | Val | Ser | Tyr | Leu | Pro | Thr | Thr | Val |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ser | Ala | Lys | Thr | Asp | Ile | Ser | Ile | Cys | Ser | Gly | Leu | Lys | Lys | Gly | Phe |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Glu | Val | Val | Glu | Lys | Leu | Asn | Gly | Lys | Ala | Tyr | Gly | Ser | Val | Met | Ile |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Leu | Val | Thr | Ser | Gly | Asp | Asp | Lys | Leu | Leu | Gly | Asn | Cys | Leu | Pro | Thr |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Val | Leu | Ser | Ser | Gly | Ser | Thr | Ile | His | Ser | Ile | Ala | Leu | Gly | Ser | Ser |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ala | Ala | Pro | Asn | Leu | Glu | Glu | Leu | Ser | Arg | Leu | Thr | Gly | Gly | Leu | Lys |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Phe | Phe | Val | Pro | Asp | Ile | Ser | Asn | Ser | Asn | Ser | Met | Ile | Asp | Ala | Phe |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Ser | Arg | Ile | Ser | Ser | Gly | Thr | Gly | Asp | Ile | Phe | Gln | Gln | His | Ile | Gln |
| | | | | 485 | | | | | 490 | | | | | | 495 |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Leu | Glu | Ser | Thr | Gly | Glu | Asn | Val | Lys | Pro | His | His | Gln | Leu | Lys | Asn | | |
| | | | 500 | | | | | 505 | | | | | 510 | | | | |
| Thr | Val | Thr | Val | Asp | Asn | Thr | Val | Gly | Asn | Asp | Thr | Met | Phe | Leu | Val | | |
| | | 515 | | | | | 520 | | | | | 525 | | | | | |
| Thr | Trp | Gln | Ala | Ser | Gly | Pro | Pro | Glu | Ile | Ile | Leu | Phe | Asp | Pro | Asp | | |
| | 530 | | | | | 535 | | | | | 540 | | | | | | |
| Gly | Arg | Lys | Tyr | Tyr | Thr | Asn | Asn | Phe | Ile | Thr | Asn | Leu | Thr | Phe | Arg | | |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 | | |
| Thr | Ala | Ser | Leu | Trp | Ile | Pro | Gly | Thr | Ala | Lys | Pro | Gly | His | Trp | Thr | | |
| | | | 565 | | | | | 570 | | | | | | 575 | | | |
| Tyr | Thr | Leu | Asn | Asn | Thr | His | His | Ser | Leu | Gln | Ala | Leu | Lys | Val | Thr | | |
| | | 580 | | | | | | 585 | | | | | 590 | | | | |
| Val | Thr | Ser | Arg | Ala | Ser | Asn | Ser | Ala | Val | Pro | Pro | Ala | Thr | Val | Glu | | |
| | | 595 | | | | | 600 | | | | | 605 | | | | | |
| Ala | Phe | Val | Glu | Arg | Asp | Ser | Leu | His | Phe | Pro | His | Pro | Val | Met | Ile | | |
| | 610 | | | | | 615 | | | | | 620 | | | | | | |
| Tyr | Ala | Asn | Val | Lys | Gln | Gly | Phe | Tyr | Pro | Ile | Leu | Asn | Ala | Thr | Val | | |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 | | |
| Thr | Ala | Thr | Val | Glu | Pro | Glu | Thr | Gly | Asp | Pro | Val | Thr | Leu | Arg | Leu | | |
| | | | 645 | | | | | 650 | | | | | | 655 | | | |
| Leu | Asp | Asp | Gly | Ala | Gly | Ala | Asp | Val | Ile | Lys | Asn | Asp | Gly | Ile | Tyr | | |
| | | 660 | | | | | 665 | | | | | | 670 | | | | |
| Ser | Arg | Tyr | Phe | Phe | Ser | Phe | Ala | Ala | Asn | Gly | Arg | Tyr | Ser | Leu | Lys | | |
| | 675 | | | | | | 680 | | | | | 685 | | | | | |
| Val | His | Val | Asn | His | Ser | Pro | Ser | Ile | Ser | Thr | Pro | Ala | His | Ser | Ile | | |
| | 690 | | | | | 695 | | | | | 700 | | | | | | |
| Pro | Gly | Ser | His | Ala | Met | Tyr | Val | Pro | Gly | Tyr | Thr | Ala | Asn | Gly | Asn | | |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 | | |
| Ile | Gln | Met | Asn | Ala | Pro | Arg | Lys | Ser | Val | Gly | Arg | Asn | Glu | Glu | Glu | | |
| | | | 725 | | | | | | 730 | | | | | 735 | | | |
| Arg | Lys | Trp | Gly | Phe | Ser | Arg | Val | Ser | Ser | Gly | Gly | Ser | Phe | Ser | Val | | |
| | | 740 | | | | | | 745 | | | | | 750 | | | | |
| Leu | Gly | Val | Pro | Ala | Gly | Pro | His | Pro | Asp | Val | Phe | Pro | Pro | Cys | Lys | | |
| | 755 | | | | | | 760 | | | | | 765 | | | | | |
| Ile | Ile | Asp | Leu | Glu | Ala | Val | Lys | Val | Glu | Glu | Glu | Leu | Thr | Leu | Ser | | |
| | 770 | | | | | 775 | | | | | 780 | | | | | | |
| Trp | Thr | Ala | Pro | Gly | Glu | Asp | Phe | Asp | Gln | Gly | Gln | Ala | Thr | Ser | Tyr | | |
| 785 | | | | | 790 | | | | | 795 | | | | | 800 | | |
| Glu | Ile | Arg | Met | Ser | Lys | Ser | Leu | Gln | Asn | Ile | Gln | Asp | Asp | Phe | Asn | | |
| | | | 805 | | | | | | 810 | | | | | 815 | | | |
| Asn | Ala | Ile | Leu | Val | Asn | Thr | Ser | Lys | Arg | Asn | Pro | Gln | Gln | Ala | Gly | | |
| | | 820 | | | | | | 825 | | | | | 830 | | | | |
| Ile | Arg | Glu | Ile | Phe | Thr | Phe | Ser | Pro | Gln | Ile | Ser | Thr | Asn | Gly | Pro | | |
| | 835 | | | | | | 840 | | | | | 845 | | | | | |
| Glu | His | Gln | Pro | Asn | Gly | Glu | Thr | His | Glu | Ser | His | Arg | Ile | Tyr | Val | | |
| | 850 | | | | | 855 | | | | | 860 | | | | | | |
| Ala | Ile | Arg | Ala | Met | Asp | Arg | Asn | Ser | Leu | Gln | Ser | Ala | Val | Ser | Asn | | |
| 865 | | | | | 870 | | | | | 875 | | | | | 880 | | |
| Ile | Ala | Gln | Ala | Pro | Leu | Phe | Ile | Pro | Pro | Asn | Ser | Asp | Pro | Val | Pro | | |
| | | | 885 | | | | | 890 | | | | | 895 | | | | |
| Ala | Arg | Asp | Tyr | Leu | Ile | Leu | Lys | Gly | Val | Leu | Thr | Ala | Met | Gly | Leu | | |
| | | 900 | | | | | | 905 | | | | | 910 | | | | |
| Ile | Gly | Ile | Ile | Cys | Leu | Ile | Ile | Val | Val | Thr | His | His | Thr | Leu | Ser | | |
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 <212> DNA
 <213> Homo sapiens

<400> 162
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 accggcagat gggcaagggt ggcaagcatc accttggcct ggaggagccc aagaagctgc 180
 gaccaccccc tgccaggact ccctgccaac aggaactgga ccaggtcctg gaggcgatct 240
 ccaccatgcg ccttcggat gagcggggcc ctctggagca cctctactcc ctgcacatcc 300
 ccaactgtga caagcatggc ctgtacaacc tcaaacagtg gcaagatgtc tctgaacggg 360
 cagcgtgggg agtgcgtgtg tgtgaacccc aacaccggga agctgatcca gggagccccc 420
 accatccggg gggaccccgga gtgtcatctc ttctacaatg agcagcagga ggctcgcggg 480
 gtgcacaccc cagcggat 498

<210> 163
 <211> 1128
 <212> DNA
 <213> Homo sapiens

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 <211> 1310
 <212> DNA
 <213> Homo sapiens

<400> 164
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tgtggtttgg agaaagcaca gttggagtag cgggttgcta aataagtccc gagcgcgagc 300
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<210> 165

<211> 177

<212> PRT

<213> Homo sapiens

<400> 165

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20          25          30
Arg Leu Lys Arg Ala Val Ser Glu His Gln Leu Leu His Asp Lys Gly
35          40          45
Lys Ser Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile
50          55          60
Ala Glu Ile His Thr Ala Glu Ile Arg Ala Thr Ser Glu Val Ser Pro
65          70          75          80
Asn Ser Lys Pro Ser Pro Asn Thr Lys Asn His Pro Val Arg Phe Gly
85          90          95
Ser Asp Asp Glu Gly Arg Tyr Leu Thr Gln Glu Thr Asn Lys Val Glu
100         105         110
Thr Tyr Lys Glu Gln Pro Leu Lys Thr Pro Gly Lys Lys Lys Gly
115         120         125
Lys Pro Gly Lys Arg Lys Glu Gln Glu Lys Lys Lys Arg Arg Thr Arg
130         135         140
Ser Ala Trp Leu Asp Ser Gly Val Thr Gly Ser Gly Leu Glu Gly Asp
145         150         155         160
His Leu Ser Asp Thr Ser Thr Thr Ser Leu Glu Leu Asp Ser Arg Arg
165         170         175
His

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<210> 166

<211> 177
 <212> PRT
 <213> Homo sapiens

<400> 166

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Met Gln Arg Arg Leu Val Gln Gln Trp Ser Val Ala Val Phe Leu Leu
 1           5           10           15
Ser Tyr Ala Val Pro Ser Cys Gly Arg Ser Val Glu Gly Leu Ser Arg
          20          25          30
Arg Leu Lys Arg Ala Val Ser Glu His Gln Leu Leu His Asp Lys Gly
      35      40      45
Lys Ser Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile
 50      55      60
Ala Glu Ile His Thr Ala Glu Ile Arg Ala Thr Ser Glu Val Ser Pro
65      70      75      80
Asn Ser Lys Pro Ser Pro Asn Thr Lys Asn His Pro Val Arg Phe Gly
      85      90      95
Ser Asp Asp Glu Gly Arg Tyr Leu Thr Gln Glu Thr Asn Lys Val Glu
      100     105     110
Thr Tyr Lys Glu Gln Pro Leu Lys Thr Pro Gly Lys Lys Lys Lys Gly
      115     120     125
Lys Pro Gly Lys Arg Lys Glu Gln Glu Lys Lys Lys Arg Arg Thr Arg
      130     135     140
Ser Ala Trp Leu Asp Ser Gly Val Thr Gly Ser Gly Leu Glu Gly Asp
145     150     155     160
His Leu Ser Asp Thr Ser Thr Thr Ser Leu Glu Leu Asp Ser Arg Arg
      165     170     175
His

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<210> 167
 <211> 3362
 <212> DNA
 <213> Homo sapiens

<400> 167

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aaatataaag attttaatac ctgccacatg gaaagctaata aataacagca aaataaaaca 360
agaatcatat gaaaaggcaa atgtcatagt gactgactgg tatggggcac atggagatga 420
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taatttctcta ctgaatgata acttaacagc tggctacgga tcacgaggcc gagtgtttgt 540
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ctacataaat gggcaaaatc aaattaaagt gacaagggtg tcatctgaca tcacaggcat 660
ttttgtgtgt gaaaaaggct cttgccccca agaaaactgt attattagta agctttttta 720
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acagcacctg gagaagactt tgatcagggc caggctacaa gctatgaaat aagaatgagt 1920
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<210> 168

<211> 2784

<212> DNA

<213> Homo sapiens

<400> 168

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tgtgactctc ctggttgctt taagttcaga actcccattc ctgggagctg gagtacagct 180
tcaagacaat ggggtataatg gattgctcat tgcaattaat cctcaggtag ctgagaatca 240
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taccaagaga agagtatttt tcagaaatat aaagatttta atacctgcca catggaaagc 360
taataataac agcaaaaataa aacaagaatc atatgaaaag gcaaatgtca tagtgactga 420

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<210> 169

<211> 592

<212> PRT

<213> Homo sapiens

<400> 169

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Thr Leu Leu Val Ala Leu Ser Ser Glu Leu Pro Phe Leu Gly Ala Gly
          20          25          30
Val Gln Leu Gln Asp Asn Gly Tyr Asn Gly Leu Leu Ile Ala Ile Asn
          35          40          45
Pro Gln Val Pro Glu Asn Gln Asn Leu Ile Ser Asn Ile Lys Glu Met

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| | | | | | | | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|-----|---------|---------|--------|---------|-----|-----|---------|---------|--|
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Ile 65 | Thr | Glu | Ala | Ser | Phe 70 | Tyr | Leu | Phe | Asn | Ala 75 | Thr | Lys | Arg | Arg | Val 80 | |
| Phe | Phe | Arg | Asn | Ile 85 | Lys | Ile | Leu | Ile | Pro 90 | Ala | Thr | Trp | Lys | Ala 95 | Asn | |
| Asn | Asn | Ser | Lys 100 | Ile | Lys | Gln | Glu | Ser 105 | Tyr | Glu | Lys | Ala | Asn | Val 110 | Ile | |
| Val | Thr | Asp 115 | Trp | Tyr | Gly | Ala 120 | His | Gly | Asp 125 | Asp | Pro | Tyr | Thr | Leu | Gln | |
| Tyr | Arg 130 | Gly | Cys | Gly | Lys 135 | Glu | Gly | Lys | Tyr 140 | Ile | His | Phe | Thr | Pro | Asn | |
| Phe 145 | Leu | Leu | Asn | Asp 150 | Asn | Leu | Thr | Ala | Gly 155 | Tyr | Gly | Ser | Arg | Gly | Arg 160 | |
| Val | Phe | Val | His 165 | Glu | Trp | Ala | His | Leu | Arg 170 | Trp | Gly | Val | Phe | Asp 175 | Glu | |
| Tyr | Asn | Asn | Asp 180 | Lys | Pro | Phe | Tyr | Ile 185 | Asn | Gly | Gln | Asn | Gln | Ile 190 | Lys | |
| Val | Thr | Arg 195 | Cys | Ser | Ser | Asp 200 | Ile | Thr | Gly 205 | Ile | Phe | Val | Cys | Glu | Lys | |
| Gly | Pro 210 | Cys | Pro | Gln | Glu | Asn 215 | Cys | Ile | Ile | Ser | Lys 220 | Leu | Phe | Lys | Glu | |
| Gly 225 | Cys | Thr | Phe | Ile | Tyr 230 | Asn | Ser | Thr | Gln | Asn | Ala 235 | Thr | Ala | Ser | Ile 240 | |
| Met | Phe | Met | Gln | Ser 245 | Leu | Ser | Ser | Val | Val 250 | Glu | Phe | Cys | Asn | Ala 255 | Ser | |
| Thr | His | Asn | Gln 260 | Glu | Ala | Pro | Asn | Leu 265 | Gln | Asn | Gln | Met | Cys | Ser | Leu | |
| Arg | Ser | Ala 275 | Trp | Asp | Val | Ile | Thr | Asp 280 | Ser | Ala | Asp | Phe | His | His | Ser | |
| Phe | Pro 290 | Met | Asn | Gly | Thr | Glu | Leu | Pro 295 | Pro | Pro | Pro 300 | Thr | Phe | Ser | Leu | |
| Val 305 | Glu | Ala | Gly | Asp | Lys 310 | Val | Val | Cys | Leu | Val | Leu | Asp | Val | Ser | Ser 320 | |
| Lys | Met | Ala | Glu | Ala 325 | Asp | Arg | Leu | Leu | Gln 330 | Leu | Gln | Gln | Ala | Ala 335 | Glu | |
| Phe | Tyr | Leu | Met 340 | Gln | Ile | Val | Glu | Ile 345 | His | Thr | Phe | Val | Gly | Ile | Ala | |
| Ser | Phe | Asp 355 | Ser | Lys | Gly | Glu | Ile | Arg 360 | Ala | Gln | Leu | His | Gln | Ile | Asn | |
| Ser | Asn 370 | Asp | Asp | Arg | Lys | Leu | Leu | Val 375 | Ser | Tyr | Leu | Pro | Thr | Thr | Val | |
| Ser 385 | Ala | Lys | Thr | Asp | Ile 390 | Ser | Ile | Cys | Ser | Gly | Leu | Lys | Lys | Gly | Phe 400 | |
| Glu | Val | Val | Glu | Lys 405 | Leu | Asn | Gly | Lys | Ala 410 | Tyr | Gly | Ser | Val | Met | Ile | |
| Leu | Val | Thr | Ser 420 | Gly | Asp | Asp | Lys | Leu | Leu 425 | Gly | Asn | Cys | Leu | Pro | Thr | |
| Val | Leu | Ser 435 | Ser | Gly | Ser | Thr | Ile | His | Ser | Ile | Ala | Leu | Gly | Ser | Ser | |
| Ala | Ala 450 | Pro | Asn | Leu | Glu | Glu | Leu | Ser | Arg | Leu | Thr | Gly | Gly | Leu | Lys | |
| Phe 465 | Phe | Val | Pro | Asp | Ile 470 | Ser | Asn | Ser | Asn | Ser | Met | Ile | Asp | Ala | Phe 480 | |
| Ser | Arg | Ile | Ser | Ser | Gly | Thr | Gly | Asp | Ile | Phe | Gln | Gln | His | Ile | Gln | |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 485 | | | | | 490 | | | | | 495 | | | |
| Leu | Glu | Ser | Thr | Gly | Glu | Asn | Val | Lys | Pro | His | His | Gln | Leu | Lys | Asn | | |
| | | | | 500 | | | | 505 | | | | | 510 | | | | |
| Thr | Val | Thr | Val | Asp | Asn | Thr | Val | Gly | Asn | Asp | Thr | Met | Phe | Leu | Val | | |
| | | | | 515 | | | | 520 | | | | | 525 | | | | |
| Thr | Trp | Gln | Ala | Ser | Gly | Pro | Pro | Glu | Ile | Ile | Leu | Phe | Asp | Pro | Asp | | |
| | | | | 530 | | | | 535 | | | | 540 | | | | | |
| Gly | Arg | Lys | Tyr | Tyr | Thr | Asn | Asn | Phe | Ile | Thr | Asn | Leu | Thr | Phe | Arg | | |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 | | |
| Thr | Ala | Ser | Leu | Trp | Ile | Pro | Gly | Thr | Ala | Lys | Pro | Gly | His | Trp | Thr | | |
| | | | | 565 | | | | | 570 | | | | | 575 | | | |
| Tyr | Thr | Leu | Met | Cys | Phe | His | His | Ala | Lys | Leu | Leu | Thr | Trp | Lys | Leu | | |
| | | | 580 | | | | | 585 | | | | | 590 | | | | |

<210> 170
 <211> 791
 <212> PRT
 <213> Homo sapiens

<400> 170

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Met | Thr | Gln | Arg | Ser | Ile | Ala | Gly | Pro | Ile | Cys | Asn | Leu | Lys | Phe | Val | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | |
| Thr | Leu | Leu | Val | Ala | Leu | Ser | Ser | Glu | Leu | Pro | Phe | Leu | Gly | Ala | Gly | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Val | Gln | Leu | Gln | Asp | Asn | Gly | Tyr | Asn | Gly | Leu | Leu | Ile | Ala | Ile | Asn | | |
| | | | 35 | | | | 40 | | | | | 45 | | | | | |
| Pro | Gln | Val | Pro | Glu | Asn | Gln | Asn | Leu | Ile | Ser | Asn | Ile | Lys | Glu | Met | | |
| | | | 50 | | | 55 | | | | | 60 | | | | | | |
| Ile | Thr | Glu | Ala | Ser | Phe | Tyr | Leu | Phe | Asn | Ala | Thr | Lys | Arg | Arg | Val | | |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | | | |
| Phe | Phe | Arg | Asn | Ile | Lys | Ile | Leu | Ile | Pro | Ala | Thr | Trp | Lys | Ala | Asn | | |
| | | | 85 | | | | | | 90 | | | | | 95 | | | |
| Asn | Asn | Ser | Lys | Ile | Lys | Gln | Glu | Ser | Tyr | Glu | Lys | Ala | Asn | Val | Ile | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Val | Thr | Asp | Trp | Tyr | Gly | Ala | His | Gly | Asp | Asp | Pro | Tyr | Thr | Leu | Gln | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Tyr | Arg | Gly | Cys | Gly | Lys | Glu | Gly | Lys | Tyr | Ile | His | Phe | Thr | Pro | Asn | | |
| | | 130 | | | | 135 | | | | | 140 | | | | | | |
| Phe | Leu | Leu | Asn | Asp | Asn | Leu | Thr | Ala | Gly | Tyr | Gly | Ser | Arg | Gly | Arg | | |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | | | |
| Val | Phe | Val | His | Glu | Trp | Ala | His | Leu | Arg | Trp | Gly | Val | Phe | Asp | Glu | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | |
| Tyr | Asn | Asn | Asp | Lys | Pro | Phe | Tyr | Ile | Asn | Gly | Gln | Asn | Gln | Ile | Lys | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Val | Thr | Arg | Cys | Ser | Ser | Asp | Ile | Thr | Gly | Ile | Phe | Val | Cys | Glu | Lys | | |
| | | 195 | | | | 200 | | | | | | 205 | | | | | |
| Gly | Pro | Cys | Pro | Gln | Glu | Asn | Cys | Ile | Ile | Ser | Lys | Leu | Phe | Lys | Glu | | |
| | | 210 | | | | 215 | | | | | 220 | | | | | | |
| Gly | Cys | Thr | Phe | Ile | Tyr | Asn | Ser | Thr | Gln | Asn | Ala | Thr | Ala | Ser | Ile | | |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 | | |
| Met | Phe | Met | Gln | Ser | Leu | Ser | Ser | Val | Val | Glu | Phe | Cys | Asn | Ala | Ser | | |
| | | | 245 | | | | | 250 | | | | | 255 | | | | |
| Thr | His | Asn | Gln | Glu | Ala | Pro | Asn | Leu | Gln | Asn | Gln | Met | Cys | Ser | Leu | | |

[illegible]

| | | | | |
|---|-----|-----|-----|-----|
| 690 | | 695 | | 700 |
| Pro Gly Ser His Ala Met Tyr Val Pro Gly Tyr Thr Ala Asn Gly Asn | | | | |
| 705 | | 710 | | 715 |
| Ile Gln Met Asn Ala Pro Arg Lys Ser Val Gly Arg Asn Glu Glu Glu | | | | 720 |
| | 725 | | 730 | 735 |
| Arg Lys Trp Gly Phe Ser Arg Val Ser Ser Gly Gly Ser Phe Ser Val | | | | |
| | 740 | | 745 | 750 |
| Leu Gly Val Pro Ala Gly Pro His Pro Asp Val Phe Pro Pro Cys Lys | | | | |
| | 755 | | 760 | 765 |
| Ile Ile Asp Leu Glu Ala Val Asn Arg Arg Gly Ile Asp Pro Ile Leu | | | | |
| | 770 | | 775 | 780 |
| Asp Ser Thr Trp Arg Arg Leu | | | | |
| 785 | | 790 | | |

<210> 171
 <211> 1491
 <212> DNA
 <213> Homo sapiens

<400> 171

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<210> 172
 <211> 364
 <212> PRT
 <213> Homo sapiens

<400> 172

Met Trp Gln Pro Leu Phe Phe Lys Trp Leu Leu Ser Cys Cys Pro Gly

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Ser Ser Gln Ile Ala Ala Ala Ala Ser Thr Gln Pro Glu Asp Asp Ile | | | |
| 20 | 25 | 30 | |
| Asn Thr Gln Arg Lys Lys Ser Gln Glu Lys Met Arg Glu Val Thr Asp | | | |
| 35 | 40 | 45 | |
| Ser Pro Gly Arg Pro Arg Glu Leu Thr Ile Pro Gln Thr Ser Ser His | | | |
| 50 | 55 | 60 | |
| Gly Ala Asn Arg Phe Val Pro Lys Ser Lys Ala Leu Glu Ala Val Lys | | | |
| 65 | 70 | 75 | 80 |
| Leu Ala Ile Glu Ala Gly Phe His His Ile Asp Ser Ala His Val Tyr | | | |
| 85 | 90 | 95 | |
| Asn Asn Glu Glu Gln Val Gly Leu Ala Ile Arg Ser Lys Ile Ala Asp | | | |
| 100 | 105 | 110 | |
| Gly Ser Val Lys Arg Glu Asp Ile Phe Tyr Thr Ser Lys Leu Trp Ser | | | |
| 115 | 120 | 125 | |
| Asn Ser His Arg Pro Glu Leu Val Arg Pro Ala Leu Glu Arg Ser Leu | | | |
| 130 | 135 | 140 | |
| Lys Asn Leu Gln Leu Asp Tyr Val Asp Leu Tyr Leu Ile His Phe Pro | | | |
| 145 | 150 | 155 | 160 |
| Val Ser Val Lys Pro Gly Glu Glu Val Ile Pro Lys Asp Glu Asn Gly | | | |
| 165 | 170 | 175 | |
| Lys Ile Leu Phe Asp Thr Val Asp Leu Cys Ala Thr Trp Glu Ala Met | | | |
| 180 | 185 | 190 | |
| Glu Lys Cys Lys Asp Ala Gly Leu Ala Lys Ser Ile Gly Val Ser Asn | | | |
| 195 | 200 | 205 | |
| Phe Asn His Arg Leu Leu Glu Met Ile Leu Asn Lys Pro Gly Leu Lys | | | |
| 210 | 215 | 220 | |
| Tyr Lys Pro Val Cys Asn Gln Val Glu Cys His Pro Tyr Phe Asn Gln | | | |
| 225 | 230 | 235 | 240 |
| Arg Lys Leu Leu Asp Phe Cys Lys Ser Lys Asp Ile Val Leu Val Ala | | | |
| 245 | 250 | 255 | |
| Tyr Ser Ala Leu Gly Ser His Arg Glu Glu Pro Trp Val Asp Pro Asn | | | |
| 260 | 265 | 270 | |
| Ser Pro Val Leu Leu Glu Asp Pro Val Leu Cys Ala Leu Ala Lys Lys | | | |
| 275 | 280 | 285 | |
| His Lys Arg Thr Pro Ala Leu Ile Ala Leu Arg Tyr Gln Leu Gln Arg | | | |
| 290 | 295 | 300 | |
| Gly Val Val Val Leu Ala Lys Ser Tyr Asn Glu Gln Arg Ile Arg Gln | | | |
| 305 | 310 | 315 | 320 |
| Asn Val Gln Val Phe Glu Phe Gln Leu Thr Ser Glu Glu Met Lys Ala | | | |
| 325 | 330 | 335 | |
| Ile Asp Gly Leu Asn Arg Asn Val Arg Tyr Leu Thr Leu Asp Ile Phe | | | |
| 340 | 345 | 350 | |
| Ala Gly Pro Pro Asn Tyr Pro Phe Ser Asp Glu Tyr | | | |
| 355 | 360 | | |

<210> 173

<211> 1988

<212> DNA

<213> Homo sapiens

<400> 173

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<210> 174

<211> 238

<212> PRT

<213> Homo sapiens

<400> 174

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Gly Ala Ala Ser Pro Arg Pro Leu Arg Phe Cys Gly Gly Ala Arg Ala
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20          25          30
Leu Arg Ser Ala Pro Leu Gly Pro Ala Pro Pro Val Asn Met Ile Arg
35          40          45
Cys Gly Leu Ala Cys Glu Arg Cys Arg Trp Ile Leu Pro Leu Leu Leu
50          55          60
Leu Ser Ala Ile Ala Phe Asp Ile Ile Ala Leu Ala Gly Arg Gly Trp
65          70          75          80
Leu Gln Ser Ser Asp His Gly Gln Thr Ser Ser Leu Trp Trp Lys Cys
85          90          95
Ser Gln Glu Gly Gly Gly Ser Gly Ser Tyr Glu Glu Gly Cys Gln Ser
100          105          110

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 Gly Phe Ile Ile Leu Val Ile Cys Phe Ile Leu Ser Phe Phe Ala Leu
 130 135 140
 Cys Gly Pro Gln Met Leu Val Phe Leu Arg Val Ile Gly Gly Leu Leu
 145 150 155 160
 Ala Leu Ala Ala Val Phe Gln Ile Ile Ser Leu Val Ile Tyr Pro Val
 165 170 175
 Lys Tyr Thr Gln Thr Phe Thr Leu His Ala Asn Pro Ala Val Thr Tyr
 180 185 190
 Ile Tyr Asn Trp Ala Tyr Gly Phe Gly Trp Ala Ala Thr Ile Ile Leu
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 Ile Gly Cys Ala Phe Phe Phe Cys Cys Leu Pro Asn Tyr Glu Asp Asp
 210 215 220
 Leu Leu Gly Asn Ala Lys Pro Arg Tyr Phe Tyr Thr Ser Ala
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<210> 175

<211> 4181

<212> DNA

<213> Homo sapiens

<220>

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4036, 4056, 4062, 4080, 4088, 4115

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<210> 176

<211> 579

<212> PRT

<213> Homo sapiens

<400> 176

Met Asn Lys Leu Tyr Ile Gly Asn Leu Ser Glu Asn Ala Ala Pro Ser

| | | | |
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| Asp Leu Glu Ser Ile Phe Lys Asp Ala Lys Ile Pro Val Ser Gly Pro | 20 | 25 | 30 |
| Phe Leu Val Lys Thr Gly Tyr Ala Phe Val Asp Cys Pro Asp Glu Ser | 35 | 40 | 45 |
| Trp Ala Leu Lys Ala Ile Glu Ala Leu Ser Gly Lys Ile Glu Leu His | 50 | 55 | 60 |
| Gly Lys Pro Ile Glu Val Glu His Ser Val Pro Lys Arg Gln Arg Ile | 65 | 70 | 75 |
| Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu Val | 85 | 90 | 95 |
| Leu Asp Ser Leu Leu Val Gln Tyr Gly Val Val Glu Ser Cys Glu Gln | 100 | 105 | 110 |
| Val Asn Thr Asp Ser Glu Thr Ala Val Val Asn Val Thr Tyr Ser Ser | 115 | 120 | 125 |
| Lys Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu | 130 | 135 | 140 |
| Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro Asp Glu Met Ala Ala | 145 | 150 | 155 |
| Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly Gln | 165 | 170 | 175 |
| Arg Gly Ser Ser Arg Gln Gly Ser Pro Gly Ser Val Ser Lys Gln Lys | 180 | 185 | 190 |
| Pro Cys Asp Leu Pro Leu Arg Leu Leu Val Pro Thr Gln Phe Val Gly | 195 | 200 | 205 |
| Ala Ile Ile Gly Lys Glu Gly Ala Thr Ile Arg Asn Ile Thr Lys Gln | 210 | 215 | 220 |
| Thr Gln Ser Lys Ile Asp Val His Arg Lys Glu Asn Ala Gly Ala Ala | 225 | 230 | 235 |
| Glu Lys Ser Ile Thr Ile Leu Ser Thr Pro Glu Gly Thr Ser Ala Ala | 245 | 250 | 255 |
| Cys Lys Ser Ile Leu Glu Ile Met His Lys Glu Ala Gln Asp Ile Lys | 260 | 265 | 270 |
| Phe Thr Glu Glu Ile Pro Leu Lys Ile Leu Ala His Asn Asn Phe Val | 275 | 280 | 285 |
| Gly Arg Leu Ile Gly Lys Glu Gly Arg Asn Leu Lys Lys Ile Glu Gln | 290 | 295 | 300 |
| Asp Thr Asp Thr Lys Ile Thr Ile Ser Pro Leu Gln Glu Leu Thr Leu | 305 | 310 | 315 |
| Tyr Asn Pro Glu Arg Thr Ile Thr Val Lys Gly Asn Val Glu Thr Cys | 325 | 330 | 335 |
| Ala Lys Ala Glu Glu Glu Ile Met Lys Lys Ile Arg Glu Ser Tyr Glu | 340 | 345 | 350 |
| Asn Asp Ile Ala Ser Met Asn Leu Gln Ala His Leu Ile Pro Gly Leu | 355 | 360 | 365 |
| Asn Leu Asn Ala Leu Gly Leu Phe Pro Pro Thr Ser Gly Met Pro Pro | 370 | 375 | 380 |
| Pro Thr Ser Gly Pro Pro Ser Ala Met Thr Pro Pro Tyr Pro Gln Phe | 385 | 390 | 395 |
| Glu Gln Ser Glu Thr Glu Thr Val His Gln Phe Ile Pro Ala Leu Ser | 405 | 410 | 415 |
| Val Gly Ala Ile Ile Gly Lys Gln Gly Gln His Ile Lys Gln Leu Ser | 420 | 425 | 430 |
| Arg Phe Ala Gly Ala Ser Ile Lys Ile Ala Pro Ala Glu Ala Pro Asp | | | |

| | | |
|---|---------------------|-----|
| 435 | 440 | 445 |
| Ala Lys Val Arg Met Val Ile Ile Thr Gly Pro | Pro Glu Ala Gln Phe | |
| 450 | 455 | 460 |
| Lys Ala Gln Gly Arg Ile Tyr Gly Lys Ile Lys | Glu Glu Asn Phe Val | |
| 465 | 470 | 475 |
| Ser Pro Lys Glu Glu Val Lys Leu Glu Ala His | Ile Arg Val Pro Ser | |
| | 485 | 490 |
| Phe Ala Ala Gly Arg Val Ile Gly Lys Gly Gly | Lys Thr Val Asn Glu | |
| | 500 | 505 |
| Leu Gln Asn Leu Ser Ser Ala Glu Val Val Val | Pro Arg Asp Gln Thr | |
| | 515 | 520 |
| Pro Asp Glu Asn Asp Gln Val Val Val Lys Ile | Thr Gly His Phe Tyr | |
| | 530 | 535 |
| Ala Cys Gln Val Ala Gln Arg Lys Ile Gln Glu | Ile Leu Thr Gln Val | |
| 545 | 550 | 555 |
| Lys Gln His Gln Gln Gln Lys Ala Leu Gln Ser | Gly Pro Pro Gln Ser | |
| | 565 | 570 |
| Arg Arg Lys | | |

<210> 177

<211> 401

<212> DNA

<213> Homo sapiens

<400> 177

```

atgccccgta aatgtcttca gtgttcttca gggtagttgg gatctcaaaa gatttggttc 60
agatecaaac aaatacacat tctgtgtttt agctcagtgt ttcttaaaaa aagaaactgc 120
cacacagcaa aaaattgttt actttgttgg acaaaccaaa tcagttctca aaaaatgacc 180
ggtgcttata aaaagttata aatatcgagt agctctaaaa caaacacact gaccaagagg 240
gaagtgagct tgtgcttagt atttacattg gatgccagtt ttgtaatcac tgacttatgt 300
gcaaactggg gcagaaattc tataaactct ttgctgtttt tgatacctgc tttttgtttc 360
attttgtttt gttttgtaaa aatgataaaa cttcagaaaa t 401

```

<210> 178

<211> 561

<212> DNA

<213> Homo sapiens

<400> 178

```

acgcctttca aggggtgtacg caaagcactc attgataccc ttttgatgg ctatgaaaca 60
gcccgtatg ggacaggggt ctttgccag aatgagtacc tacgctatca ggaggccctg 120
agtgaactgg ccaactgcgtt taaagcacga attgggagct ctacgcgaca tcaccagtca 180
gcagccaaag acctaactca gtcccttgag gtctcccaa caaccatcca ggtgacatac 240
ctccctcca gtcagaagag taaacgtgcc aagcacttcc ttgaattgaa gagctttaag 300
gataactata acacattgga gagtactctg tgacggagct gaaggactct tgccgtagat 360
taagccagtc agttgcaatg tgcaagacag gctgcttgcc ggcccgccct cggaacatct 420
ggcccagcag gccagactg tatccatcca agttcccgtt gtatccagag ttcttagagc 480
ttgtgtctaa agggtaattc cccaaccctt ccttatgagc atttttagaa cattggctaa 540
gactattttc cccagtagc g 561

```

<210> 179

<211> 521

<212> DNA

<213> Homo sapiens

<400> 179

```

cccaacgcgt ttgcaaatat tcccctggta gcctacttcc ttacccccga atattggtaa 60
gatcgagcaa tggcttcagg acatgggttc tcttctcctg tgatcattca agtgctcact 120
gcatgaagac tggcttgtct cagtgtttca acctcaccag ggctgtctct tggccacac 180
ctcgctccct gttagtgcog tatgacagcc cccatcaaat gacctggcc aagtcacggt 240
ttctctgtgg tcaaggttgg ttggctgatt ggtggaaagt aggtgggacc aaaggaggcc 300
acgtgagcag tcagcaccag ttctgcacca gcagcgctc cgtcctagtg ggtgttcctg 360
tttctcctgg ccctgggtgg gctagggcct gattcgggaa gatgcctttg cagggagggg 420
aggataagtg ggatctacca attgattctg gcaaaacaat ttctaagatt tttttgcttt 480
atgtgggaaa cagatctaaa tctcatttta tgctgtattt t 521

```

<210> 180

<211> 417

<212> DNA

<213> Homo sapiens

<400> 180

```

ggtggaattc gccgaagatg gcggaggtgc aggtcctggg gcttgatggt cgaggccatc 60
tcttgggccg cctggcgccg atcgtggcta aacaggtact gctgggccgg aaggtggtgg 120
tcgtacgttg tgaaggcatc aacattttctg gcaatttcta cagaaacaag ttgaagtacc 180
tggctttcct ccgcaagcgg atgaacacca acccttcccg aggccctac cacttcgggg 240
ccccagccg catcttctgg cggaccgtgc gaggtatgct gcccacaaa accaagcgag 300
gccaggccgc tctggaccgt ctcaagggtg ttgacggcat cccaccgcc tacgacaaga 360
aaaagcggat ggtggttctt gctgcctca aggtcgtgcg tctgaagcctt acaagaa 417

```

<210> 181

<211> 283

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 35

<223> n = A,T,C or G

<400> 181

```

gatttcttct aaataggatg taaaacttct ttcanattac tcttcctcag tcttgccctgc 60
caagaactca agtgttaactg tgataaaaata acctttccca ggtatattgg caggtatgtg 120
tgtaatctca gaatacacag gtgacataga tatgatatga caactggtaa tgggtggattc 180
atttacattg tttaacttct tatgaccagg ccttaaggga aggtcagttt tttaaaaaac 240
caagtagtgt ctctctacct atctccagat acatgtcaaa aaa 283

```

<210> 182

<211> 401

<212> DNA

<213> Homo sapiens

<400> 182

```

atattcttgc tgcttatgca gctgacattg ttgccctccc taaagcaacc aagtagcctt 60
tatttcccac agtgaaagaa aacgctggcc tatcagttac attacaaaag gcagatttca 120
agaggattga gtaagtagtt ggatggcttt cataaaaaca agaattcaag aagaggattc 180

```



```

atgctttaag aaacatttgt tatacattcc tcacaaatta tacctgggat aaaaactatg 240
tagcaggcag tgtgttttcc ttccatgtct ctctgcacta cctgcagtgt gtcctctgag 300
gctgcaagtc tgtcctatct gaattcccag cagaagcact aagaagctcc accctatcac 360
ctagcagata aaactatggg gaaaacttaa atctgtgcat a 401

```

<210> 183

<211> 366

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 325

<223> n = A,T,C or G

<400> 183

```

accgtgtcca agtttttaga acccttggtta gccagaccga ggtgtcctgg tcaccgtttc 60
accatcatgc tttgatgttc ccctgtcttt ctctctcttg ctctcaagag caaagggttaa 120
tttaaggaca aagatgaagt cactgtaaac taatctgtca ttgtttttac ctcccttttc 180
tttttcagtg cagaaattaa aagtaagtat aaagcacctg gattgggagt gtttttgcgt 240
gtgtcggaat cactggtaaa tgttggtgta gaacaatccc tccccttgca cttgtgaaaa 300
cactttgagc gctttaagag attancctga gaaataatta aatatctttt ctcttcaaaa 360
aaaaaa 366

```

<210> 184

<211> 370

<212> DNA

<213> Homo sapiens

<400> 184

```

tcttacttca aaagaaaaat aaacataaaa aataagttgc tggttcctaa caggaaaaat 60
tttaataatt gtactgagag aaactgctta cgtacacatt gcagatcaaa tatttgaggt 120
taaaatgtta gtctacatag atgggtgatt gtaactttat tgccattaaa agatttcaaa 180
ttgcattcat gcttctgtgt acacataatg aaaaatgggc aaataatgaa gatctctcct 240
tcagtctgct ctgtttaatt ctgctgtctg ctcttctcta atgctgcgtc cctaattgta 300
cacagtttag tgatatctag gagtataaag ttgtcgccca tcaataaaaa tcacaaagtt 360
ggtttaaaaa 370

```

<210> 185

<211> 107

<212> DNA

<213> Homo sapiens

<400> 185

```

ctcatattat tttccttttg agaaattgga aactctttct gttgctatta tattaataaa 60
gttggtgttt attttctggt agtcaccttc cccatttaaa aaaaaaa 107

```

<210> 186

<211> 309

<212> DNA

<213> Homo sapiens

<400> 186

```

gaaaggatgg ctctgggttg cacagagctg ggacttcatg ttcttctaga gagggccaca 60

```

```

agagggccac aggggtggcc gggagttgtc agctgatgcc tgctgagagg caggaattgt 120
gccagtgagt gacagtcagt agggagtgct tcttcttggg gaggaagaa ggtagagcct 180
ttctgtctga atgaaaggcc aaggctacag tacaggggcc cgccccagcc aggggtgttaa 240
tgcccacgta gtggaggcct ctggcagatc ctgcattcca aggtcactgg actgtacgtt 300
tttatggtt                                     309

```

```

<210> 187
<211> 477
<212> DNA
<213> Homo sapiens

```

```

<400> 187
ttcagtccta gcaagaagcg agaattctga gatcctccag aaagtcgagc agcaccacc 60
tccaacctcg ggccagtgtc ttcaggcttt actggggacc tgcgagctgg cctaattgtg 120
tggcctgcaa gccaggccat ccctgggctc cacagacgag ctccgagcca ggtcaggctt 180
cggaggccac aagctcagcc tcaggcccag gcactgattg tggcagaggg gccactacc 240
aaggtctagc taggcccag acctagttag ccagacagtg agaagcccct ggaaggcaga 300
aaagttggga gcatggcaga cagggaaggg aaacattttc agggaaaaga catgtatcac 360
atgtcttcag aagcaagtca ggtttcatgt aaccgagtgt cctcttgctg gtccaaaagt 420
agcccagggc tgtagcacag gcttcacagt gattttgtgt tcagccgtga gtcacac 477

```

```

<210> 188
<211> 220
<212> DNA
<213> Homo sapiens

```

```

<400> 188
taaatatggt agatattaat attcctctta gatgaccagt gattccaatt gtcccaagtt 60
ttaaataagt accctgtgag tatgagataa attagtgaca atcagaacaa gtttcagtat 120
cagatgttca agaggaagtt gctattgcat tgattttaat atttgtacat aaacactgat 180
ttttttgagc attattttgt atttgttgta ctttaataacc 220

```

```

<210> 189
<211> 417
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 76, 77
<223> n = A,T,C or G

```

```

<400> 189
accatcttga cagaggatac atgctcccaa aacgtttgtt accacactta aaaatcactg 60
ccatcattaa gcacnnttt caaaattata gccattcatg atttactttt tccagatgac 120
tatcattatt ctagtccttt gaatttgtaa ggggaaaaaa aacaaaaaca aaaacttacg 180
atgcactttt ctccagcaca tcagatttca aattgaaaat taaagacatg ctatggtaat 240
gcacttgcta gtactacaca ctttgtacaa caaaaaacag aggcaagaaa caacggaaag 300
agaaaagcct tcctttgttg gcccttaaac tgagtcaaga tctgaaatgt agagatgatc 360
tctgacgata cctgtatggt cttattgtgt aaataaaatt gctggtatga aatgaca 417

```

```

<210> 190
<211> 497
<212> DNA

```

<213> Homo sapiens

<400> 190

```
gcactgcggc gctctcccgt cccgcgggtg ttgctgctgc tgcgctgct gctgggcctg 60
aacgcaggag ctgtcattga ctggcccaca gaggagggca aggaagtatg ggattatgtg 120
acggtccgca aggatgccta catgttcttg tggtctctatt atgccaccaa ctcctgcaag 180
aacttctcag aactgcccct ggcatgtggt cttcagggcg gtccaggcgg ttctagcact 240
ggatttgga actttgagga aattggggccc cttgacagt atctcaaacc acggaaaacc 300
acctggctcc aggtgcccag tctcctatct gtggataatc ccgtgggcac tgggttcagt 360
tatgtgaatg gtagtggtgc ctatgccaa gacctggcta tgggtggcttc agacatgatg 420
gttctcctga agaccttctt cagttgccac aaagaattcc agacagttcc attctacatt 480
ttctcagagt cctatgg                                     497
```

<210> 191

<211> 175

<212> DNA

<213> Homo sapiens

<400> 191

```
atgttgaata ttttgcttat taactttggt tattgtcttc tccctcgatt agaattattag 60
ctacttgagt acaaggattt gagcctgtta cattcactgc tgaatttttag gctcctggaa 120
gataccagc attcaataga gaccacacaa taaatatatg tcaaataaaa aaaaa 175
```

<210> 192

<211> 526

<212> DNA

<213> Homo sapiens

<400> 192

```
agtaaacatt attatttttt ttatatattgc aaaggaaaca tatctaattc ttcctataga 60
aagaacagta ttgctgtaat tccttttctt ttcttcctca tttcctctgc cccttaaaag 120
attgaagaaa gagaaacttg tcaactcata tccacgttat ctagcaaagt acataagaat 180
ctatcactaa gtaatgtatc cttcagaatg tgttggttta ccagtgcac cccatattca 240
tcacaaaatt aaagcaagaa gtccatagta atttatttgc taatagtgga tttttaatgc 300
tcagagtttc tgaggtcaaa ttttatcttt tcaacttaca gctctatgat cttaaataat 360
ttacttaatg tattttgggtg tattttcctc aaattaatat tgggtgttcaa gactatatct 420
aatcctctg atcactttga gaaacaaact tttattaaat gtaaggcact tttctatgaa 480
ttttaaatat aaaaataaat attgttctga ttattactga aaaaaa 526
```

<210> 193

<211> 553

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 290, 300, 411, 441

<223> n = A,T,C or G

<400> 193

```
tccattgtgg tggaattcgc tctctggtaa aggcgtgcag gtgttggccg cggcctctga 60
gctgggatga gccgtgctcc cggtggaagc aaggagagcc agccggagcc atggccagta 120
cagtggtagc agttggactg accattgctg ctgcaggatt tgcaggccgt tacgttttgc 180
aagccatgaa gcataatggag cctcaagtaa aacaagtttt tcaaagccta ccaaaatctg 240
```

```

ccttcagtgg tggctattat agaggtgggt ttgaacccaa aatgacaaan cgggaagcan 300
cattaatact aggtgtaagc cctactgcca ataaagggaa aataagagat gctcatcgac 360
gaattatgct tttaaatcat cctgacaaag gaggatctcc ttatatagca nccaaaatca 420
atgaagctaa agatttacta naaggtcaag ctaaaaaatg aagtaaatgt atgatgaatt 480
ttaagttcgt attagtttat gtatatgagt actaagtttt tataataaaa tgcctcagag 540
ctacaatttt aaa 553

```

```

<210> 194
<211> 320
<212> DNA
<213> Homo sapiens

```

```

<400> 194
cccttcccaa tccatcagta aagaccccat ctgccttgtc catgccgttt cccaacaggg 60
atgtcacttg atatgagaat ctcaaactctc aatgccttat aagcattcct tcctgtgtcc 120
attaagactc tgataattgt ctcccctcca taggaatttc tcccaggaaa gaaatatatc 180
cccatctccg tttcatatca gaactaccgt ccccgatatt cccttcagag agattaaaga 240
ccagaaaaaa gtgagcctct tcatctgcac ctgtaataagt ttcagttcct attttcttcc 300
attgacccat atttatacct 320

```

```

<210> 195
<211> 320
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 203, 218
<223> n = A,T,C or G

```

```

<400> 195
aagcatgacg tggggaaatg gtcagacctt gtattgtgtt tttggccttg aaagtagcaa 60
gtgaccagaa tctgccatgg caacaggctt taaaaaagac ccttaaaaag acactgtctc 120
aactgtggtg ttagcaccag ccagctctct gtacatttgc tagctttag ttttctaaga 180
ctgagtaaac ttcttatttt tanaaaagggg aggctggntt gtaactttcc ttgtacttaa 240
ttgggtaaaa gtcttttcca caaaccacca tctattttgt gaactttgtt agtcactttt 300
tatttggtaa attatgaact 320

```

```

<210> 196
<211> 357
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 36
<223> n = A,T,C or G

```

```

<400> 196
atataaaata atacgaaact ttaaaaagca ttggantgtc agtatgttga atcagtagtt 60
tcactttaac tgtaaacaat ttcttaggac accatttggg ctagtctctg tgtaagtgtg 120
aatactacaa aaacttattt atactgttct tatgtcattt gttatattca tagatttata 180
tgatgatatg acatctggct aaaaagaaat tattgcaaaa ctaaccacta tgtacttttt 240
tataaatact gtatggacaa aaaatggcat tttttatatt aaattgttta gctctggcaa 300

```

aaaaaaaaa ttttaagagc tgggtactaat aaaggattat tatgactgtt aaaaaaa 357

<210> 197

<211> 565

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 27

<223> n = A,T,C or G

<400> 197

```
tcagctgagt accatcagga tatttanccc ttttaagtgt gttttgggag tagaaaaacta 60
aagcaacaat acttcctctt gacagctttg attggaatgg gggtattaga tcattcacct 120
tggccttaca ctttttagga tgcttgggtga acataacacc acttataatg aacatccctg 180
gttcctatat tttgggctat gtgggtagga attgttactt gttactgcag cagcagccct 240
agaaagtaag cccagggtt cagatctaag ttagtccaaa agctaaatga tttaaagtca 300
agttgtaatg ctaggcataa gcactctata atacattaaa ttataggccg agcaattagg 360
gaatgtttct gaaacattaa acttgatatt atgtcactaa aattctaaca caaacttaaa 420
aaatgtgtct catacatatg ctgtactagg cttcatcatg catttctaaa tttgtgtatg 480
atgtgaatat atgaaagaat ttatacaaga gtgttattta aaattattaa aaataaatgt 540
atataatttg tacctattgt aaaaaa 565
```

<210> 198

<211> 484

<212> DNA

<213> Homo sapiens

<400> 198

```
tatgtaagta ttggtgtctg ctttaaaaaa ggagaccag acttcacctg tccttttttaa 60
acatttgaga acagtgttac tctgagcagt tgggccacct tcaccttacc cgacagctga 120
ctgttggtatg tgtccattgt cgccagtttg gctgttgccc ggacaggaca ggacctccat 180
tgggcgcagc agcagggtggc aggggtgttg cttgaggtgg gtggcagcgt ctggtcctcc 240
tctctggtgc tttctgagag ggtctctaaa gcagagtgtg gttggcctgg gggaaggcag 300
agcacgtatt tctcccctct agtaacctct catttgtgag tgttccctct ggctttctga 360
agggcagcag actcttgagt atactgcaga ggacatgctt tatcagtagg tcctgagggc 420
tccaggggct caactgacca agtaacacag aagttggggg atgtggccta tttgggtcgg 480
aaac 484
```

<210> 199

<211> 429

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 77, 88, 134, 151, 189, 227, 274, 319

<223> n = A,T,C or G

<400> 199

```
gcttatgttt tttgttttaa cttttgtttt ttaacattta gaatattaca ttttgtatta 60
tacagtacct ttctcanaca ttttgtanaa ttcatttcgg cagctcacta ggattttgct 120
gaacattaaa aagngtgata gcgatattag ngccaatcaa atggaaaaaa ggtagtctta 180
```

```

ataaacaana cacaacgttt ttatacaaca tacttttaaaa tattaanaaa actccttaat 240
attgtttcct attaagtatt attccttggg caanattttc tgatgctttt gatcttctct 300
caatttagca tttgcttng gtttttttct ctatttagca ttctgttaag gcacaaaaac 360
tatgtactgt atgggaaatg ttgtaaatat taccttttcc acatttttaa cagacaactt 420
tgaatccaa 429

```

<210> 200

<211> 279

<212> DNA

<213> Homo sapiens

<400> 200

```

gcttttttga ggaattacag ggaagctcct ggaattgtac atggatatct ttatccctag 60
ggggaaatca aggagctggg caccctaat tctttatgga agtggttaaa actattttta 120
ttttattaca agtattacta gagtagtggt tctactctaa gatttcaaaa gtgcatttaa 180
aatcatatcat gttcccgctt gcaaatatat tggtattttg gtggagaaaa aaatagtata 240
ttctacataa aaaattaaag atattaacta agaaaaaaa 279

```

<210> 201

<211> 569

<212> DNA

<213> Homo sapiens

<400> 201

```

taggtcagta tttttagaaa ctcttaatat ctcatactct tgataccaaa agcagccctg 60
attgttaaaag cacacacctg cacaagaagc agtgatggtt gcatttacat ttccctgggtg 120
cacaaaaaaa aattctcaaa aagcaaggac ttacgctttt tgcaaaagcct ttgagaagtt 180
actggatcat aggaagctta taacaagaat ggaagattct taaataactc actttctttg 240
gtatccagta acagtagatg ttcaaaatat gtagctgatt aataccagca ttgtgaacgc 300
tgtacaacct tgtggttatt actaagcaag ttactactag cttctgaaaa gtagcttcat 360
aattaatggt attttataac tgctttccat gacttttact ttgccctaag ctaatctcca 420
aaatctgaaa tgctactcca atatcagaaa aaaaggggga ggtggaatta tatttctctg 480
gattttaaga gtacagagaa tcatgcacat ctctgattag ttcatatatg tctagtgtgt 540
aataaaaagtc aaagatgaac tctcaaaaa 569

```

<210> 202

<211> 501

<212> DNA

<213> Homo sapiens

<400> 202

```

attaataggc ttaataattg ttggcaagga tccttttgct ttctttggca tgcaagctcc 60
tagcatctgg cagtggggcc aagaaaataa gggttatgca tgtatgatgg ttttcttctt 120
gagcaacatg attgagaacc agtgatatgt aacaggtgca tttgagataa ctttaaataa 180
tgtacctgtg tggctctaagc tggaatctgg tcaccttcca tccatgcaac aacttggtca 240
aattcttgac aatgaaatga agctcaatgt gcatatggat tcaatccac accatcgatc 300
atagaccac ctatcagcac tgaaaactct ttgtcattaa gggatcattg caagagcagc 360
gtgactgaca ttatgaaggc ctgtactgaa gacagcaagc tgttagtaca gaccagatgc 420
tttcttggca ggctcgttgt acctcttggg aaacctcaat gcaagatagt gtttcagtgc 480
tggcatattt tgggaattctg c 501

```

<210> 203

<211> 261

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 36, 96

<223> n = A,T,C or G

<400> 203

```
gacaagctcc tggctctgag atgtcttctc gttaangaga tgggcctttt ggaggtaaag 60
gataaaatga atgagttctg tcatgattca ctattntata acttgcatga cctttactgt 120
gttagctctt tgaatgttct tgaaatttta gactttcttt gtaaacaaat gatatgtcct 180
tatcattgta taaaagctgt tatgtgcaac agtgtggaga ttccttgtct gatttaataa 240
aatacttaaa cactgaaaaa a 261
```

<210> 204

<211> 421

<212> DNA

<213> Homo sapiens

<400> 204

```
agcatctttt ctacaacgtt aaaattgcag aagtagctta tcattaataa acaacaacaa 60
caacaataac aataaatcct aagtgtaaat cagttattct accccctacc aaggatatca 120
gcctgttttt tccctttttt ctctgggaa taattgtggg cttcttccca aatttctaca 180
gcctctttcc tcttctcatg cttgagcttc cctgtttgca cgcattgcgtg tgcaggactg 240
gcttgtgtgc ttggactcgg ctccagggtg aagcatgctt tcccttgta ctgttgga 300
aactcaaac ttcaagccct aggtgtagcc attttgtcaa gtcataact gtatttttgt 360
actggcatta acaaaaaaag aagataaaat attgtaccat taaacttta taaaacttta 420
a 421
```

<210> 205

<211> 460

<212> DNA

<213> Homo sapiens

<400> 205

```
tactctcaca atgaaggacc tggaatgaaa aatctgtgtc taaacaagtc ctcttttagat 60
tttagtgcaa atccagagcc agcgtcgggt gcctcgagta attctttcat gggtagcttt 120
ggaaaagctc tcaggagacc tcacctagat gcctattcaa gctttggaca gccatcagat 180
tgtcagccaa gagcctttta tttgaaagct cattcttccc cagacttgga ctctgggtca 240
gaggaagatg ggaaagaaaag gacagatttt caggaagaaa atcacatttg tacctttaaa 300
cagacttttag aaaactacag gactccaaat tttcagtctt atgacttgga cacatagact 360
gaatgagacc aaaggaaaag cttaacatac tacctcaagg tgaactttta tttaaaagag 420
agagaatctt atgtttttta aatggagtta tgaattttaa 460
```

<210> 206

<211> 481

<212> DNA

<213> Homo sapiens

<400> 206

```
tgtggtggaa ttcgggacgc cccagaccc tgactttttc ctgcgtgggc cgtctcctcc 60
tgcggaagca gtgacctctg accctgggtg accttcgctt tgagtgcctt ttgaacgctg 120
gtcccgcggg acttggtttt ctcaagctct gtctgtccaa agacgctccg gtcgaggtcc 180
cgctgcct gggtggatac ttgaacccca gacgccctc tgtgctgctg tgtccggagg 240
```

```

cggccttccc atctgcctgc ccacccggag ctctttccgc cggcgcaggg tcccaagccc 300
acctcccgcc ctacgtcctg cgggtgtcgt ctgggcacgt cctgcacaca caatgcaagt 360
cctggcctcc gcgcccggcc gccacgcga gccgtaccgc cgcgcaactc tgttatttat 420
ggtgtgaccc cctggagggtg ccctcggccc accggggcta tttattgttt aatttatttg 480
t                                                    481

```

<210> 207

<211> 605

<212> DNA

<213> Homo sapiens

<400> 207

```

accctttttg gattcagggc tcctcacaat taaaatgagt gtaatgaaac aaggtgaaaa 60
tatagaagca tccctttgta tactgttttg ctacttacag tgtacttggc attgctttat 120
ctcactggat tctcacggta ggatttctga gatcttaatc taagctccaa agttgtctac 180
ttttttgatc ctagggtgct ccttttgttt tacagagcag ggtcacttga tttgctagct 240
ggtggcagaa ttggcaccat taccaggtc tgactgacca ccagtcagag gcactttatt 300
tgtatcatga aatgatttga aatcattgta aagcagcgaa gtctgataat gaatgccagc 360
tttccttgtg ctttgataac aaagactcca aatattctgg agaacctgga taaaagtttg 420
aagggctaga ttgggatttg aagacaaaat tgtaggaaat cttacatttt tgcaataaca 480
aacattaatg aaagcaaaac attataaaag taattttaat tcaccacata cttatcaatt 540
tcttgatgct tccaaatgac atctaccaga tatggttttg tggacatctt tttctgttta 600
cataa                                                    605

```

<210> 208

<211> 655

<212> DNA

<213> Homo sapiens

<400> 208

```

ggcgttggtc tggattcccg tcgtaactta aagggaact ttcacaatgt ccggagccct 60
tgatgtcctg caaatgaagg aggaggatgt ccttaagttc cttgcagcag gaaccactt 120
aggtggcacc aatcttgact tccagatgga acagtacatc tataaaagga aaagtgatgg 180
catctatatc ataaatctca agaggacctg ggagaagctt ctgctggcag ctcgtgcaat 240
tgttgccatt gaaaaccctg ctgatgtcag tgttatatcc tccaggaata ctggccagag 300
ggctgtgctg aagtttgctg ctgccactgg agccactcca attgctggcc gcttcaactc 360
tggaaccttc actaaccaga tccaggcagc cttccgggag ccacggcttc ttgtggttac 420
tgacccaggg gctgaccacc agcctctcac ggaggcatct tatgttaacc tacctacat 480
tgcgctgtgt aacacagatt ctccctctgcg ctatgtggac attgccatcc catgcaacaa 540
caagggagct cactcagtgg gtttgatgtg gtggatgctg gctcgggaag ttctgcgcat 600
gcgtggcacc atttcccgtg aacacccatg ggaggtcatg cctgatctgt acttc 655

```

<210> 209

<211> 621

<212> DNA

<213> Homo sapiens

<400> 209

```

catttagaac atggttatca tccaagacta ctctaccctg caacattgaa ctcccaagag 60
caaatccaca ttcctcttga gttctgcagc ttctgtgtaa atagggcagc tgtcgtctat 120
gccgtagaat cacatgatct gaggaccatt catggaagct gctaaatagc ctagtctggg 180
gagtcttcca taaagttttg catggagcaa acaaacagga ttaactagg tttggttcct 240
tcagccctct aaaagcatag ggcttagcct gcaggcttcc ttgggcttcc tctgtgtgtg 300
tagttttgta aacactatag catctgttaa gatccagtgt ccatggaaac cttccacat 360

```



```

gccgtgactc tggactatat cagtttttgg aaagcagggt tcctctgcct gctaacaagc 420
ccacgtggac cagtctgaat gtctttcctt tacacctatg tttttaaata gtcaaacttc 480
aagaacaat ctaaacaagt ttctgttgca tatgtgtttg tgaacttgta tttgtattta 540
gtaggcttct atattgcatt taacttgttt ttgtaactcc tgattcttcc ttttcggata 600
ctattgatga ataaagaaat t                                     621

```

<210> 210

<211> 533

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 20, 21, 61

<223> n = A,T,C or G

<400> 210

```

cgccttgggg agccggcggn ngagtccggg acgtggagac ccgggggtccc ggcagccggg 60
nggcccgcgg gcccagggtg gggatgcacc gccgcggggg gggagctggc gccatcgcca 120
agaagaaact tgcagaggcc aagtataagg agcaggggac ggtcttggtt gaggaccagc 180
tagcccagat gtcaaagcag ttggacatgt tcaagaccaa cctggaggaa tttgccagca 240
aacacaagca ggagatccgg aagaatcctg agttccgtgt gcagttccag gacatgtgtg 300
caaccattgg cgtggatccg ctggcctctg gaaaaggatt ttggtctgag atgctgggcg 360
tgggggactt ctattacgaa ctagggtgtcc aaattatcga agtgtgcctg gcgctgaagc 420
atcggaatgg aggtctgata actttggagg aactacatca acaggtgttg aagggaaggg 480
gcaagttcgc ccaggatgtc agtcaagatg acctgatcag agccatcaag aaa          533

```

<210> 211

<211> 451

<212> DNA

<213> Homo sapiens

<400> 211

```

ttagcttgag ccgagaacga ggcgagaaag ctggagaccg aggagaccgc ctagagcgga 60
gtgaacgggg aggggaccgt ggggaccggc ttgatcgtgc gcggacacct gctaccaagc 120
ggagcttcag caaggaagtg gaggagcgga gtagagaacg gccctcccag cctgaggggc 180
tgcgcaaggc agctagcctc acggaggatc gggaccgtgg gcgggatgcc gtgaagcgag 240
aagctgccct acccccagtg agccccctga aggcggctct ctctgaggag gagttagaga 300
agaaatccaa ggctatcatt gaggaatata tccatctcaa tgacatgaaa gaggcagtc 360
agtgcgtgca ggagctggcc tcacctcctt tgctcttcac ctttgtacgg catggtgtcg 420
agtctacgct ggagcgcagt gccattgctc q                                     451

```

<210> 212

<211> 471

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 54

<223> n = A,T,C or G

<400> 212

```

gtgattattc ttgatcaggg agaagatcat ttagatttgt tttgcattcc ttanaatgga 60

```

```

gggcaacatt ccacagctgc cctggctgtg atgagtgtcc ttgcaggggc cggagtagga 120
gcactggggt gggggcgga tttgggttac tcgatgtaag ggattccttg ttgttggtt 180
gagatccagt gcagttgtga tttctgtgga tcccagcttg gttccaggaa ttttgtgtga 240
ttggcttaaa tccagttttc aatcttcgac agctgggctg gaacgtgaac tcagtagctg 300
aacctgtctg acccggtcac gttcttggat cctcagaact ctttgcctt gtcggggtg 360
gggtgggaac tcacgtgggg agcgtggct gagaaaatgt aaggattctg gaatacatat 420
tccatgggac tttccttccc tctcctgctt cctcttttcc tgctccctaa c 471

```

```

<210> 213
<211> 511
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 27, 63, 337, 442
<223> n = A,T,C or G

```

```

<400> 213
ctaattagaa acttgctgta cttttntttt tcttttaggg gtcaaggacc ctctttatag 60
ctnccatttg cctacaataa attattgcag cagtttgcaa tactaaaata ttttttatag 120
actttatatt tttccttttg ataaagggat gctgcatagt agagttgggt taattaaact 180
atctcagccg tttccctgct tttccctctg ctccatagtc ctcatgtcc ttccaggag 240
ctcttttaat cttaaagttc tacatttcat gctcttagtc aaattctgtt acctttttaa 300
taactcttcc cactgcataat ttccatcttg aattgnggt tctaaattct gaaactgtag 360
ttgagataca gctatttaat atttctggga gatgtgcac cctcttctt gtggttgccc 420
aaggttggtt tgcgttaactg anactccttg atatgcttca gagaatttag gcaaacactg 480
gccatggccg tgggagtact gggagtaaaa t 511

```

```

<210> 214
<211> 521
<212> DNA
<213> Homo sapiens

```

```

<400> 214
agcattgcca aataatccct aattttccac taaaaatata atgaaatgat gttaagcttt 60
ttgaaaagtt taggttaaac ctactgttgt tagattaatg tatttggtgc ttccctttat 120
ctggaatgtg gcattagctt ttttatttta accctcttta attcttattc aattccatga 180
cttaagggtg gagagctaaa cactgggatt tttggataac agactgacag ttttgcataa 240
ttataatcgg cattgtacat agaaaggata tggctacctt ttgttaaadc tgcactttct 300
aaatatcaaa aaagggaat gaagtataaa tcaatttttg tataatctgt ttgaaacatg 360
agttttatatt gcttaatat agggctttgc cccttttctg taagtctctt gggatcctgt 420
gtagaagctg ttctcattaa acaccaaaaca gttaaagtcca ttctctggta ctagctacaa 480
attcggtttc atattctact taacaattta aataaactga a 521

```

```

<210> 215
<211> 381
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 17, 20, 60, 61, 365
<223> n = A,T,C or G

```

<400> 215

```

gagcggagag cggaccngtn agagccctga gcagccccac cgccgcccgc ggcctagttn 60
ncatcacacc ccgggaggag ccgcagctgc cgcagccggc cccagtcacc atcaccgcaa 120
ccatgagcag cgaggccgag acccagcagc cgcccgccgc ccccccgcgc gccccgcgc 180
tcagcgccgc cgacaccaag cccggcacta cgggcagcgg cgcagggagc ggtggcccg 240
gcggcctcac atcggcggcg cctgccggcg gggacaagaa ggtcatcgca acgaaggttt 300
tggaacagt aaaatggttc aatgtaagga acggatatgg tttcatcaac aggaatgaca 360
ccaangaaga tgtatttgta c                                     381

```

<210> 216

<211> 425

<212> DNA

<213> Homo sapiens

<400> 216

```

ttactaacta ggtcattcaa ggaagtcaag ttaacttaaa catgtcacct aaatgcactt 60
gatgggtgtg aaatgtccac cttcttaaat ttttaagatg aacttagttc taaagaagat 120
aacaggccaa tcctgaaggt actccctgtt tgctgcagaa tgtcagatat tttggatgtt 180
gcataagagt cctatttgcc ccagttaatt caacttttgt ctgcctgttt tgtggactgg 240
ctggctctgt tagaactctg tccaaaaagt gcatggaata taacttgtaa agcttccac 300
aattgacaat atatatgcat gtgtttaaac caaatccaga aagcttaaac aatagagctg 360
cataatagta tttattaaag aatcacaact gtaaaccatga gaataactta aggattctag 420
tttag                                             425

```

<210> 217

<211> 181

<212> DNA

<213> Homo sapiens

<400> 217

```

gagaaaccaa atgatagggt gtagagcctg atgactccaa acaaagccat caccgcatt 60
cttcctcctt cttctggtgc tacagctcca agggcccttc accttcatgt ctgaaatgga 120
actttggctt tttcagtgga agaatatgtt gaaggtttca ttttgttcta gaaaaaaaaa 180
a                                             181

```

<210> 218

<211> 405

<212> DNA

<213> Homo sapiens

<400> 218

```

caggccttcc agttcactga caaacatggg gaagtgtgcc cagctggctg gaaacctggc 60
agtgatacca tcaagcctga tgtccaaaag agcaaagaat atttctccaa gcagaagtga 120
gcgctgggct gttttagtgc caggctgcgg tgggcagcca tgagaacaaa acctcttctg 180
tatttttttt ttccattagt aaaacacaag acttcagatt cagccgaatt gtggtgtctt 240
acaaggcagg cctttcctac aggggtgga gagaccagcc tttcttcctt tggtaggaat 300
ggcctgagtt ggcgttgtgg gcaggctact ggtttgatg atgtattagt agagcaaccc 360
attaatcttt tgtagtttgt attaaacttg aactgagaaa aaaaa                                     405

```

<210> 219

<211> 216

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 207, 210

<223> n = A,T,C or G

<400> 219

```
actccaagag ttagggcagc agagtggagc gatttagaaa gaacatttta aaacaatcag 60
ttaattttacc atgtaaaaatt gctgtaaatg ataatgtgta cagattttct gttcaaatat 120
tcaattgtaa acttcttggt aagactgtta cgtttctatt gcttttgtat gggatattgc 180
aaaaataaaa aggaaagaac cctcttnaan aaaaaa 216
```

<210> 220

<211> 380

<212> DNA

<213> Homo sapiens

<400> 220

```
cttacaaatt gccccatgt gtaggggaca cagaaccctt tgagaaaact tagatttttg 60
tctgtacaaa gtctttgcct ttttccttct tcattttttt ccagtacatt aaatttgtca 120
atttcattctt tgagggaac tgattagatg ggttggtgtt gtgttctgat ggagaaaaca 180
gcacccaag gactcagaag atgattttta cagttcagaa cagatgtgtg caatattggg 240
gcatgtaata atgttgagtg gcagtcaaaa gtcattgatt ttatcttagt tcttcattac 300
tgcattgaaa aggaaaacct gtctgagaaa atgcctgaca gttaattta aaactatggg 360
gtaagtcttt gacaaaaaaaa 380
```

<210> 221

<211> 398

<212> DNA

<213> Homo sapiens

<400> 221

```
ggttagtaag ctgtcgactt tgtaaaaaag ttaaaaatga aaaaaaaagg aaaaatgaat 60
tgtatattta atgaatgaac atgtacaatt tgccactggg aggaggttcc tttttgttgg 120
gtgagctctgc aagtgaattt cactgatgtt gatattcatt gtgtgtagtt ttatttcggg 180
cccagccccg ttttccttta ttttgagact aatgccagct gcgtgtctag ttttgagtgc 240
agtaaaatag aatcagcaaa tcaactttat ttttcattct tttccggtat tttttgggtt 300
gtttctgtgg gagcagtgtg caccaactct tctgtatat tgcccttttg ctggaaaatg 360
ttgtatgttg aataaaattt tctataaaaa ttaaaaaa 398
```

<210> 222

<211> 301

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 49, 64

<223> n = A,T,C or G

<400> 222

```
ttcgataatt gatctcatgg gctttccctg gaggaaggt ttttttgnt gtttattttt 60
taanaacttg aaacttgtaa actgagatgt ctgtagcttt tttgccatc tgtagtgtat 120
gtgaagattt caaacctga gagcactttt tctttgttta gaattatgag aaaggcacta 180
```

```

gatgacttta ggatttgcatt ttttcccttt attgcctcat ttcttgtgac gccttgttgg 240
ggaggggaaat ctgtttatatt tttcctacaa ataaaaagct aagattctat atcgcaaaaa 300
a                                                    301

```

```

<210> 223
<211> 200
<212> DNA
<213> Homo sapiens

```

```

<400> 223
gtaagtgtt aggaagaaac tttgcaaaca tttaatgagg atacactgtt catttttaaa 60
attccttcac actgtaattt aatgtgtttt atattctttt gtagtaaaac aacataactc 120
agatttctac aggagacagt ggttttattt ggattgtctt ctgtaatagg tttcaataaa 180
gctggatgaa cttaaaaaaa                200

```

```

<210> 224
<211> 385
<212> DNA
<213> Homo sapiens

```

```

<400> 224
gaaagggtttg atccggactc aaagaaagca aaggagtgtg agccgccatc tgcaggagca 60
gctgtaactg caagacctgg acaagagatt cgtcagcgaa ctgcagctca aagaaacctt 120
tctccaacac cagcaagccc taaccagggc cctcctccac aagttccagt atctcctgga 180
ccaccaaagg acagttctgc ccctggtgga cccccagaaa ggactgttac tccagcccta 240
tcatcaaattg tgttaccaag acatcttgga tccccgtcta cttcagtgcc tggaatgggt 300
aaacagagca cttaatgtta tttacagttt atattgtttt ctctgggttac caataaaacg 360
ggccattttc aggtggtaaa aaaaa                385

```

```

<210> 225
<211> 560
<212> PRT
<213> Homo sapiens

```

```

<400> 225
Met Glu Cys Leu Tyr Tyr Phe Leu Gly Phe Leu Leu Leu Ala Ala Arg
 1           5           10           15
Leu Pro Leu Asp Ala Ala Lys Arg Phe His Asp Val Leu Gly Asn Glu
 20           25           30
Arg Pro Ser Ala Tyr Met Arg Glu His Asn Gln Leu Asn Gly Trp Ser
 35           40           45
Ser Asp Glu Asn Asp Trp Asn Glu Lys Leu Tyr Pro Val Trp Lys Arg
 50           55           60
Gly Asp Met Arg Trp Lys Asn Ser Trp Lys Gly Gly Arg Val Gln Ala
 65           70           75           80
Val Leu Thr Ser Asp Ser Pro Ala Leu Val Gly Ser Asn Ile Thr Phe
 85           90           95
Ala Val Asn Leu Ile Phe Pro Arg Cys Gln Lys Glu Asp Ala Asn Gly
100          105          110
Asn Ile Val Tyr Glu Lys Asn Cys Arg Asn Glu Ala Gly Leu Ser Ala
115          120          125
Asp Pro Tyr Val Tyr Asn Trp Thr Ala Trp Ser Glu Asp Ser Asp Gly
130          135          140
Glu Asn Gly Thr Gly Gln Ser His His Asn Val Phe Pro Asp Gly Lys

```

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Pro | Phe | Pro | His | His | Pro | Gly | Trp | Arg | Arg | Trp | Asn | Phe | Ile | Tyr | Val |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Phe | His | Thr | Leu | Gly | Gln | Tyr | Phe | Gln | Lys | Leu | Gly | Arg | Cys | Ser | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Arg | Val | Ser | Val | Asn | Thr | Ala | Asn | Val | Thr | Leu | Gly | Pro | Gln | Leu | Met |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Val | Thr | Val | Tyr | Arg | Arg | His | Gly | Arg | Ala | Tyr | Val | Pro | Ile | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gln | Val | Lys | Asp | Val | Tyr | Val | Val | Thr | Asp | Gln | Ile | Pro | Val | Phe | Val |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Thr | Met | Phe | Gln | Lys | Asn | Asp | Arg | Asn | Ser | Ser | Asp | Glu | Thr | Phe | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Lys | Asp | Leu | Pro | Ile | Met | Phe | Asp | Val | Leu | Ile | His | Asp | Pro | Ser | His |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Phe | Leu | Asn | Tyr | Ser | Thr | Ile | Asn | Tyr | Lys | Trp | Ser | Phe | Gly | Asp | Asn |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Thr | Gly | Leu | Phe | Val | Ser | Thr | Asn | His | Thr | Val | Asn | His | Thr | Tyr | Val |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Asn | Gly | Thr | Phe | Ser | Leu | Asn | Leu | Thr | Val | Lys | Ala | Ala | Ala | Pro |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gly | Pro | Cys | Pro | Pro | Pro | Pro | Pro | Pro | Pro | Arg | Pro | Ser | Lys | Pro | Thr |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Pro | Ser | Leu | Gly | Pro | Ala | Gly | Asp | Asn | Pro | Leu | Glu | Leu | Ser | Arg | Ile |
| | | 340 | | | | | 345 | | | | | 350 | | | |
| Pro | Asp | Glu | Asn | Cys | Gln | Ile | Asn | Arg | Tyr | Gly | His | Phe | Gln | Ala | Thr |
| | 355 | | | | | 360 | | | | | 365 | | | | |
| Ile | Thr | Ile | Val | Glu | Gly | Ile | Leu | Glu | Val | Asn | Ile | Ile | Gln | Met | Thr |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Asp | Val | Leu | Met | Pro | Val | Pro | Trp | Pro | Glu | Ser | Ser | Leu | Ile | Asp | Phe |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Val | Val | Thr | Cys | Gln | Gly | Ser | Ile | Pro | Thr | Glu | Val | Cys | Thr | Ile | Ile |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Ser | Asp | Pro | Thr | Cys | Glu | Ile | Thr | Gln | Asn | Thr | Val | Cys | Ser | Pro | Val |
| | | 420 | | | | | | 425 | | | | 430 | | | |
| Asp | Val | Asp | Glu | Met | Cys | Leu | Leu | Thr | Val | Arg | Arg | Thr | Phe | Asn | Gly |
| | 435 | | | | | | 440 | | | | | 445 | | | |
| Ser | Gly | Thr | Tyr | Cys | Val | Asn | Leu | Thr | Leu | Gly | Asp | Asp | Thr | Ser | Leu |
| | 450 | | | | | 455 | | | | 460 | | | | | |
| Ala | Leu | Thr | Ser | Thr | Leu | Ile | Ser | Val | Pro | Asp | Arg | Asp | Pro | Ala | Ser |
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 <222> 9, 67, 247, 275, 277, 397
 <223> n = A,T,C or G

<400> 255
 gtggccagng actagaaggc gaggcgcccgc gggaccatgg cggcggcggc ggacgagcgg 60
 agtccanagg acggagaaga cgaggaagag gaggagcagt tggttctggt ggaattatca 120
 ggaattattg attcagactt cctctcaaaa tgtgaaaata aatgcaagg tttgggcatt 180
 gacactgaga ggcccattct gcaagtggac agctgtgtct ttgctgggga gtatgaagac 240
 actctangga cctgtgttat atttgaagaa aatgntnaac atgctgatac agaaggcaat 300
 aataaaacag tgctaaaata taaatgccat acaatgaaga agctcagcat gacaagaact 360
 ctcttgacag agaagaagga aggagaagaa aacatangtg g 401

<210> 256
 <211> 401
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 7, 37, 51, 79, 96, 98, 103, 104, 107, 116, 167, 181, 183,
 194, 206, 276, 303, 307, 308, 310, 323, 332, 341, 353, 374,
 376
 <223> n = A,T,C or G

<400> 256
 tgggtgncct gggatgggga accgcggtgg cttccngnga ggtttcggca ntggcatccg 60
 gggccgggggt cgcggccgng gacggggccg gggccnangc cgnnganctc gcggangcaa 120
 ggccgaggat aaggagtggg tgcccgtcac caacttgggc cgcttgncca aggacatgaa 180
 nancagccc ctgnaggaga tctatntctt cttccctgcc ccattaagga atcaagagat 240
 catttgattt cttcctgggg gcctctctca aggatnaggt ttttgaagat tatgccagt 300
 canaaannan accccgttgc ccngtccatc tncacccaac ncttccaagg gcnatttttg 360
 ttttagcctc attncngggg ggaaccttaa cccaatttgg g 401

<210> 257
 <211> 401
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 382, 387
 <223> n = A,T,C or G

<400> 257
 atgtatgtaa aacacttcat aaaatgtaaa gggctataac aaatatgtta taaagtgatt 60
 ctctcagccc tgaggatatac agaatcattt gcctcagact gctgttggat tttaaaattt 120
 ttaaaatatc tgctaagtaa tttgctatgt cttctccac actatcaata tgctgcttc 180
 taacaggctc cccactttct tttaatgtgc tgttatgagc tttggacatg agataaccgt 240


```
gcctgttcag agtgtctaca gtaagagctg gacaaactct ggagggacac agtctttgag 300
acagctcttt tggttgcttt ccacttttct gaaagggttca cagtaacctt ctagataata 360
gaaactccca gttaaagcct angctancaa ttttttttag t 401
```

```
<210> 258
<211> 401
<212> DNA
<213> Homo sapiens
```

```
<400> 258
ggagcgctag gtcggtgtac gaccgagatt aggggtgctg ccagctccgg gaggccgcgg 60
tgaggggccc ggcccaagct gccgaccga gccgatcgtc agggtcgcca gcgcctcagc 120
tctgtggagg agcagcagta gtcggagggt gcaggatatt agaaatggct actccccagt 180
caattttcat ctttgcaatc tgcattttta tgataacaga attaatctct gcctcaaaaa 240
gctactatga tatcttaggt gtgccaaaat cggcatcaga gcgccaaatc aagaaggcct 300
ttcacaagtt ggccatgaag taccaccctg acaaaaaata gaccagatg ctgaagcaaa 360
attcagagag attgcagaag catatgaac actctcagat g 401
```

```
<210> 259
<211> 401
<212> DNA
<213> Homo sapiens
```

```
<400> 259
attgggtttg gagggaggat gatgacagag gaatgccctt tggccatcac ggttttgatt 60
ctccagaata ttgtgggttt gatcatcaat gcagtcatgt taggctgcat ttcatgaaa 120
acagctcagg ctacagaag ggcagaaact ttgattttca gccgccatgc tgtgattgcc 180
gtccgaaatg gcaagctgtg cttcatgttc cgagtgggtg acctgaggaa aagcatgac 240
attagtgcct ctgtgcgcac ccagggtggtc aagaaaacaa ctacacctga aggggagggtg 300
gttcctattc accaactgga cattcctggt gataacccaa tcgagagcaa taacattttt 360
ctggtggccc ctttgatcat ctgccacgtg attgacaagc g 401
```

```
<210> 260
<211> 363
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 7, 9, 19, 41, 63, 73, 106, 111, 113, 116, 119, 156, 158,
162, 187, 247, 288, 289, 290, 292, 298, 299, 300, 340
<223> n = A,T,C or G
```

```
<400> 260
aggaganang gaggggggana tgaatagggg tggagagggg natagtggat gagcagggca 60
canggagagg aancagaaaag gagaggcaag acagggagac acacancaca nangangana 120
caggtggggg ctgggggtggg gcatggagag ccttt nangt cncccaggcc accctgctct 180
cgctggnctg ttgaaaccca ctccatggct tcctgccact gcagttgggc ccagggctgg 240
cttatnctg gaatgcaagt ggctgtggct tggagcctcc cctctggnnn anggaaannn 300
attgtccct tatctgcttg gaatatctga gtttttccan cccggaaata aaacacacac 360
aca 363
```

```
<210> 261
<211> 401
```

<212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 114, 152
 <223> n = A,T,C or G

<400> 261
 cggtctctccg ccgctctccc ggggtttcgg ggcacttggg tcccacagtc tggtcctgct 60
 tcaccttccc ctgacctgag tagtcgccat ggcacagggt ctcagaggca ctgngactga 120
 cttccctgga tttgatgagc gggtgatgc anaaactctt cggaaggcta tgaaaggctt 180
 gggcacagat gaggagagca tcctgactct gttgacatcc cgaagtaatg ctcagcgcca 240
 ggaaatctct gcagctttta agactctgtt tggcagggat cttctggatg acctgaaatc 300
 agaactaact ggaaaatttg aaaaattaat tgtggctctg atgaaaccct ctcggttta 360
 tgatgcttat gaactgaaac atgccttgaa gggagctgga a 401

<210> 262
 <211> 401
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 7, 26, 258, 305, 358, 373, 374, 378
 <223> n = A,T,C or G

<400> 262
 agtctanaac atttctaata ttttgngctt tcatatatca aaggagatta tgtgaaacta 60
 tttttaataa ctgtaaagtg acatatagtt ataagatata tttctgtaca gtagagaaag 120
 agtttataac atgaagaata ttgtaccatt atacattttc attctcgatc tcataagaaa 180
 ttcaaaaagaa taatgataga ggtgaaaata tgtttacttt ctctaaatca agcctagtgt 240
 tcaactcaaa aattatgntg catagtttta ttttgaattt aggttttggg actacttttt 300
 tccancttca atgagaaaat aaaatctaca actcaggagt tactacagaa gttctaanta 360
 tttttttgct aannagcnaa aaatataaac atatgaaaat g 401

<210> 263
 <211> 401
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 232, 290, 304, 326, 383
 <223> n = A,T,C or G

<400> 263
 ctgtccgacc aagagaggcc ggccgagccc gaggcttggg cttttgcttt ctggcggagg 60
 gatctgcggc ggtttaggag gcggcgctga tcctgggagg aagaggcagc tacggcggcg 120
 gcggcggttg cggttagggc ggcggcgaat aaaggggccg ccgcccgggtg atgcggtgac 180
 cactgcggca ggcccaggag ctgagtgggc cccggccctc agcccgtccc gncggaccgg 240
 ctttccctcaa ctctccatct tctcctgccg accgagatcg ccgaggcggn ctcaggctcc 300
 ctanccctt ccccgctcc tcccccccc cgtccccgcc ccggggggccg ccgccaccgg 360
 cctcccacca tggctctgaa ganaatccac aagggaattga a 401

<210> 264
 <211> 401
 <212> DNA
 <213> Homo sapiens

<400> 264
 aacaccagcc actccaggac ccctgaaggc ctctaccagg tcaccagtgt tctgcgccta 60
 aagccacccc ctggcagaaa cttcagctgt gtgttctgga atactcacgt gagggaaactt 120
 actttggcca gcattgacct tcaaagtcag atggaaccca ggacccatcc aacttggctg 180
 cttcacattt tcatcccctc ctgcatcatt gctttcattt tcatagccac agtgatagcc 240
 ctaagaaaac aactctgtca aaagctgtat tcttcaaaaag acacaacaaa aagacctgtc 300
 accacaacaa agaggggaagt gaacagtgtc gtgaatctga acctgtggtc ttggggagcca 360
 ggggtgacctg atatgacatc taaagaagct tctggactct g 401

<210> 265
 <211> 271
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 59
 <223> n = A,T,C or G

<400> 265
 gccacttcct gtggacatgg gcagagcgct gctgccagtt cctggtagcc ttgaccacna 60
 cgctgggggg tctttgtgat ggatcatgggt ctcatattgca cttgggggtg tgggattcaa 120
 gttagaagtt tctagatctg gccgggcgca gtggctcaca cctgtaatcc cagcaactta 180
 ggaggctgag gcaggcggat catgaggtca ggagatcgag accgtcctgg ctaacacagt 240
 gaaaccccg tctactaaa aatacaaaaa a 271

<210> 266
 <211> 401
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 45
 <223> n = A,T,C or G

<400> 266
 attcataaat ttagctgaaa gatactgatt caatttgtat acagngaata taaatgagac 60
 gacagcaaaa ttttcatgaa atgtaaaata tttttatagt ttgttcatac tatatgaggt 120
 tctattttaa atgactttct ggatttttaa aaatttcttt aaatacaatc atttttgtaa 180
 tttttatttt atgcttatga tctagataat tgcagaatat cattttatct gactctgtct 240
 tcataagaga gctgtggccg aattttgaac atctgttata gggagtgtac aaattagaag 300
 gcaatgtgga aaaacaattc tgggaaagat ttctttatat gaagtcacctg ccactagcca 360
 gccatcctaa ttgatgaaag ttatctgttc acaggcctgc a 401

<210> 267
 <211> 401
 <212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 116, 247, 277, 296, 307, 313, 322, 323, 336, 342, 355, 365, 377, 378, 397

<223> n = A,T,C or G

<400> 267

```
gaagaggcat cacctgatcc cggagacctt tggagttaag aggcggcgga agcgagggcc 60
tgtggagtcg gatcctcttc ggggtgagcc agggtcggcg cgcgcggctg tctcanaact 120
catgcagctg ttcccgcgag gcctgtttga ggacgcgctg ccgcccatcg tgctgaggag 180
ccaggtgtac agccttgtgc ctgacaggac cgtggccgac cggcagctga aggagcttca 240
agagcanggg gagacaaaat cgtccagctg ggcttcnact tggatgcca tggaanttat 300
tctttcnctt ganggactta cnnnggaccc aagaanccct tncaaggggc ccttngtgga 360
tgggncccga aaccccnnta tttgcccttg ggggggncca a 401
```

<210> 268

<211> 223

<212> DNA

<213> Homo sapiens

<400> 268

```
tcgccatgtt ggccaggctg gtcttgaact cctgacttta agtgatccac ccgcctcaac 60
ctcccaaagt gctgggatta caggtgtgag ccaccgcgcc tggcctgata catactttta 120
gaatcaagta gtcacgcact ttttctgttc atttttctaa aaagtaaata tacaatgtt 180
ttgttttttg ttttttttgt ttgtttgttt ctgttttttt ttt 223
```

<210> 269

<211> 401

<212> DNA

<213> Homo sapiens

<400> 269

```
actatgtaaa ccacattgta ctttttttta ctttggcaac aaatatttat acatacaaga 60
tgctagttca tttgaatatt tctcccaact tatccaagga tctccagctc taacaaaatg 120
gtttattttt atttaaattg caatagtgtg tttttaaaat ccaaatacaga ggtgcaggcc 180
accagttaaa tgccgtctat caggttttgt gccttaagag actacagagt caaagctcat 240
ttttaaaagga gtaggacaaa gttgtcacag gtttttgttg ttgtttttat tgcccccaaa 300
attacatgtt aatttccatt tatatcaggg attctattta cttgaagact gtgaagttgc 360
cattttgtct cattgttttc tttgacataa ctaggatcca t 401
```

<210> 270

<211> 401

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 240, 382

<223> n = A,T,C or G

<400> 270

```
tggctgttga ttcacctcag cactgcttgg tatctgcacc ctacctctct ttagaggctg 60
```

```

ccttgtcaac tgaaaaatgc acctgacttc gagcaagact ctttccttag gttctggatc 120
tgtttgagcc ccatggcact gagctggaat ctgagggtct tgttccaagg atgtgatgat 180
gtggggagaat gttctttgaa agagcagaaa tccagtctgc atggaaacag cctgtagagn 240
agaagtttcc agtgataagt gttcactgtt ctaaggaggt acaccacagc tacctgaatt 300
ttcccaaaat gagtgcttct gtgcgttaca actggccttt gtacttgact gtgatgactt 360
tgttttttct tttcaattct anatgaacat gggaaaaaat g 401

```

```

<210> 271
<211> 329
<212> DNA
<213> Homo sapiens

```

```

<400> 271
ccacagcctc caagtcaggt ggggtggagt cccagagctg cacagggttt ggcccaagtt 60
tctaagggag gcacttcctc ccctcgccca tcagtgccag cccctgctgg ctggtgcctg 120
agccccctcag acagccccct gccccgcagg cctgccttct cagggaacttc tgcggggcct 180
gaggcaagcc atggagttag acccaggagc cggacacttc tcaggaaatg gcttttccca 240
acccccagcc cccaccgggt ggttcttctt gttctgtgac tgtgtatagt gccaccacag 300
cttatggcat ctcatgagg acaaaaaaaa 329

```

```

<210> 272
<211> 401
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 1, 7, 12, 21, 61, 62, 66, 72, 78, 88, 90, 92, 98, 117, 119,
128, 130, 134, 142, 144, 151, 159, 162, 164, 168, 169, 177,
184, 185, 188, 194, 202, 204, 209, 213, 218, 223, 231, 260,
272, 299, 300, 306, 321, 322, 323, 331, 335, 336, 338
<223> n = A,T,C or G

```

```

<221> misc_feature
<222> 341, 342, 343, 345, 346, 351, 358, 360, 362, 363, 387, 390,
392
<223> n = A,T,C or G

```

```

<400> 272
nggctgntaa cntcggaggt nacttcctgg actatcctgg agacccccctc cgcttccacg 60
nncatnatat cntcatngc tgggcccntn angacacnat cccactccaa cacctgngng 120
atgctggncn cctnggaacc ancntcagaa ngaccctgnt cntntgtntt ccgcaanctg 180
aagnnaangc gggntacacc tncntgcant ggnccacnct gcngggaact ntacacacct 240
acgggatgtg gctgcgccan gagccaagag cntttctgga tgattcccca gcctcttgnn 300
agggantcta caacattgct nnntaccttt ntcnncngc nnntnntgga ntacaggngn 360
tnntaacact acatcttttt tactgcncn tnccttgggtg g 401

```

```

<210> 273
<211> 401
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature

```

<222> 399

<223> n = A,T,C or G

<400> 273

```

cagcaccatg aagatcaaga tcategcacc cccagagcgc aagtactcgg tgtggatcgg 60
tggctccatc ctggcctcac tgtccacctt ccagcagatg tggattagca agcaggagta 120
cgacgagtcg ggccctcca tcgtccaccg caaatgtctt taaacggact cagcagatgc 180
gtagcatttg ctgcatgggt taattgagaa tagaaatttg cccctggcaa atgcacacac 240
ctcatgctag cctcacgaaa ctggaataag ccttcgaaaa gaaattgtcc ttgaagcttg 300
tatctgatat cagcactgga ttgtagaact tgttgctgat tttgaccttg tattgaagtt 360
aactgttccc cttggtatta acgtgtcagg gctgagtgtnt c 401

```

<210> 274

<211> 401

<212> DNA

<213> Homo sapiens

<400> 274

```

ccaccacac ccaccgcgcc ctggttcgcc ttttctcgg gagccagtcc gcgccaccgc 60
cgccgccag gccatcgcca ccttcgcag ccattgtccac caggtccgtg tcctcgctct 120
cctaccgcag gatgttcggc ggccggggca ccgcgagccg gccgagctcc agccggagct 180
acgtgactac gtccacccgc acctacagcc tgggcagcgc gctgcgcccc agcaccagcc 240
gcagcctcta cgctcgtcc ccgggcggcg tgtatgccac gcgctcctct gccgtgcgcc 300
tgcggagcag cgtgcccggg gtgcggctcc tgcaggactc ggtggacttc tcgctggccg 360
acgccatcaa caccgagttc aagaacaccc gcaccaacga g 401

```

<210> 275

<211> 401

<212> DNA

<213> Homo sapiens

<400> 275

```

ccacttcac cactttgtgg agcagtgcct tcagcgcac ccgcatgcca ggtatccctg 60
ctggcctggg cctgggcttc gggagagcag aggggtgtca ggagggttaag gccagggtgt 120
gaagggactt acctccaaa ggttctgcag gggaatctgg agctacacac aggagggatc 180
agctcctggg tgtgtcagag gccagcctgg ggagctctgg ccactgcttc ccatgagctg 240
aggagagagg agaggggacc cgaggctgag gcataagtgg caggatttcg ggaagctggg 300
gacacggcag tgatgctgcg gtctctcctc ccttttcct ccaggcccag tgccagcacc 360
ctcctgaacc actctttctt caagcagatc aagcgacgtg c 401

```

<210> 276

<211> 401

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 11

<223> n = A,T,C or G

<400> 276

```

tctgatattg ntacccttga gccacctaag ttagaagaaa ttggaaatca agaagttgtc 60
attgttgaag aagcacagag ttcagaagac tttaacatgg gctcttcctc tagcagccag 120
tatactttct gtcagccaga aactgtatct tcattctcag ctagtgatga tgaatcaagt 180

```

```

agtgatgaaa ccagtaatca gccagtcct gccttttagac gacgccgtgc taggaagaag 240
accgttttctg cttcagaatc tgaagaccgg ctagttgggtg aacaagaaac tgaaccttct 300
aaggagttga gtaaactgtca gttcagtagt ggtctcaata agtgtgttat acttgctttg 360
gtgattgcaa tcagcatggg atttggccat ttctatggca c 401

```

```

<210> 277
<211> 401
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 227, 333
<223> n = A,T,C or G

```

```

<400> 277
aactttggca acatatctca gcaaaaaacta cagctatggtt attcatgccca aaataaaaagc 60
tgtgcagagg agtggctgca atgaggtcac aacgggtgggtg gatgtaaaag agatcttcaa 120
gtcctcatca cccatccctc gaactcaagt cccgctcatt acaaattctt cttgccagtg 180
tccacacatc ctgccccatc aagatgttct catcatgtgt tacgagnggc gctcaaggat 240
gatgcttctt gaaaattgct tagttgaaaa atggagagat cagcttagta aaagatccat 300
acagtgggaa gagaggctgc aggaacagcg ganaacagtt caggacaaga agaaaacagc 360
cggggcgacc agtcgtagta atccccccaa accaaaggga a 401

```

```

<210> 278
<211> 401
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 322, 354
<223> n = A,T,C or G

```

```

<400> 278
aatgagtgtg agaccacaaa tgaatgccgg gaggatgaaa tgtgtttgaa ttatcatggc 60
ggcttccgtt gttatccacg aaatccttgt caagatccct acattctaac accagagAAC 120
cgatgtgttt gccagtcctc aaatgccatg tgccgagAAC tgccccagtc aatagtctac 180
aaatacatga gcatccgatc tgataggtct gtgccatcag acatcttcca gatacaggcc 240
acaactatth atgccaacac catcaatact ttctcgatta aatctggaaa tgaaaatgga 300
gagtctacct acgacaacaa anccctgtaa gtgcaatgct tgtgctcgtg aagncattat 360
caggaccaag agaacatatc gtggacctgg agatgctgac a 401

```

```

<210> 279
<211> 401
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 30, 35, 81, 88, 180, 212, 378, 384, 391
<223> n = A,T,C or G

```

```

<400> 279

```

```

aaattattgc ctctgataca tacctaagtn aacanaacat taatacctaa gtaaacataa 60
cattacttgg aggggttcag nttctaantg aaactgtatt tgaaactttt aagtatactt 120
taggaaacaa gcatgaacgg cagtctagaa taccagaaac atctacttgg gtagcttggn 180
gccattatcc tgtggaatct gatatgtctg gnagcatgtc attgatggga catgaagaca 240
tctttgaaa tgatgagatt atttcctgtg ttaaaaaaaa aaaaaatctt aaattcctac 300
aatgtgaaac tgaactaat aattttgatc ctgatgtatg ggacagcgta tctgtaccag 360
gctctaaata acaaaagnta ggnggacaag nacatgttcc t 401

```

<210> 280

<211> 326

<212> DNA

<213> Homo sapiens

<400> 280

```

gaagtggaat tgtataattc aattcgataa ttgatctcat gggctttccc tggaggaaag 60
gttttttttg ttgttttttt tttaagaact tgaaacttgt aaactgagat gtctgtagct 120
tttttgccca tctgtagtgt atgtgaagat ttcaaacct gagagcactt tttctttggt 180
tagaattatg agaaaggcac tagatgactt taggatttgc atttttccct ttattgcctc 240
atttcttgtg acgccttgtt ggggagggaa atctgtttat tttttcctac aaataaaaaa 300
ctaagattct atatcgcaaa aaaaaa 326

```

<210> 281

<211> 374

<212> DNA

<213> Homo sapiens

<400> 281

```

caacgcgttt gcaaattatc ccttggtagc ctacttctt acccccgaat attggtaaga 60
tcgagcaatg gcttcaggac atgggttctc ttctcctgtg atcattcaag tgctcactgc 120
atgaagactg gcttgtctca gtgtttcaac ctccaccagg ctgtctcttg gtccacacct 180
cgctccctgt tagtgccgta tgacagcccc catcaaatga cettggccaa gtcacggttt 240
tctctgtgtc aaggttggtt ggctgattgg tggaaagtag ggtggaccaa aggaggccac 300
gtgagcagtc agcaccagtt ctgcaccagc agcgccctcg tctagtggg tgttcctgtt 360
tctcctggcc ctgg 374

```

<210> 282

<211> 404

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 26, 27, 51, 137, 180, 222

<223> n = A,T,C or G

<400> 282

```

agtgtggtgg aattcccgca tcctanncgc cgactcacac aaggcagagt ngccatggag 60
aaaattccag tgtcagcatt cttgtcctt gtggccctct cctacactct ggccagagat 120
accacagtca aacctgnagc caaaaaggac acaaaggact ctcgacccaa actgccccan 180
accctctcca gaggttgggg tgaccaactc atctggactc anacatatga agaagctcta 240
tataaatcca agacaagcaa caaaccttg atgattattc atcacttga tgagtgccca 300
cacagtcaag ctttaaagaa agtgtttgct gaaaataaag aaatccagaa attggcagag 360
cagtttgtcc tcctcaatct ggtttatgaa acaactgaca aaca 404

```


<210> 283
 <211> 184
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 26
 <223> n = A,T,C or G

<400> 283
 agtgtggtgg aattcacttg cttaanttgt gggcaaaaga gaaaaagaag gattgatcag 60
 agcattgtgc aatacagttt cattaactcc ttccctcgct cccccaaaaa tttgaatttt 120
 tttttcaaca ctcttacacc tgttatggaa aatgtcaacc tttgtaagaa aacccaaaata 180
 aaaa 184

<210> 284
 <211> 421
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 147, 149
 <223> n = A,T,C or G

<400> 284
 ctattaatcc tgccacaata tttttaatta cgtacaaaga tctgacatgt caccagggga 60
 ccatttcac ccactgctct gtttgccgc cagtcttttg tctctctctt cagcaatggg 120
 gaggcggata ccctttcctc ggggaanana aatccatggg ttgttgccct tgccaataac 180
 aaaaatggtg gaaagtcgag tggcaaagct gttgccattg gcatctttca cgtgaaccac 240
 gtcaaaagat ccaggggtgc tctctctggt ggtgatcaca ccaattcttc ctaggttagc 300
 acctccagtc accatacaca ggttaccagt gtcgaacttg atgaaatcag taatcttgcc 360
 agtctctaaa tcaatctgaa tggatatcatt caccttgatg aggggatcgg ggtagcggat 420
 g 421

<210> 285
 <211> 361
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 34, 188
 <223> n = A,T,C or G

<400> 285
 ctgggtggtg actctttatt tcattgtccg gaanaaagat gggagtggga acaggggtgga 60
 cactgtgcag gcttcagctt ccactccggg caggattcag gctatctggg accgcagggg 120
 ctgccagggtg cacagccctg gctcccgagg caggcaggca aggtgacggg actggaagcc 180
 cttttcanag ccttgaggga gctggtccgt ccacaagcaa tgagtgccac tctgcagttt 240
 gcaggggatg gataaacagg gaaacactgt gcattcctca cagccaacag tgtaggtctt 300
 ggtgaagccc cggcgctgag ctaagctcag gctgttccag ggagccacga aactgcaggt 360
 a 361

<210> 286
 <211> 336
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 40, 68, 75, 127, 262
 <223> n = A,T,C or G

<400> 286
 tttgagtggc agcgccttta tttgtggggg ccttcaaggn agggtcgtgg ggggcagcgg 60
 ggaggaanag ccganaaaact gtgtgaccgg ggcctcaggt ggtgggcatt gggggctcct 120
 cttgcanatg cccattggca tcaccgggtgc agccattggt ggagcgggt accggtcctt 180
 tcttgttcaa catagggtag gtggcagcca cgggtccaac tcgcttgagg ctgggccctg 240
 ggcgctccat tttgtgttcc angagcatgt ggttctgtgg cgggagcccc acgcaggccc 300
 tgaggatgtt ctcgatgcag ctgcgctggc ggaaaa 336

<210> 287
 <211> 301
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 15, 33, 44, 53, 76, 83, 107, 117, 154, 166, 192, 194, 207,
 215, 241, 246
 <223> n = A,T,C or G

<400> 287
 tgggtaccaa atttntttat ttgaaggaat ggnacaaatc aaanaactta agnggatgtt 60
 ttgttacaac ttatanaaaa ggnaaaggaa accccaacat gcatgcnctg ccttgngnac 120
 cagggaagtc accccacggc tatggggaaa ttancccgag gcttancttt cattatcaat 180
 gtctcccagg gngngcttgt caaaaanata ttccnccaag ccaaattcgg gcgctcccat 240
 nttgcncaag ttggtcacgt ggtcacccaa ttctttgatg gctttcacct gctcattcag 300
 g 301

<210> 288
 <211> 358
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 39, 143, 226
 <223> n = A,T,C or G

<400> 288
 aagtttttaa acttttttatt tgcatattaa aaaaattgng cattccaata attaaaatca 60
 tttgaacaaa aaaaaaaatg gcactctgat taaactgcat tacagcctgc aggacacctt 120
 gggccagctt ggttttactc tanatttcac tgctgcgccca cccacttct tccacccac 180
 ttcttccttc accaacaatgc aagttctttc cttccctgcc agccanatag atagacagat 240
 gggaaaggca ggcgcggcct tcgttgctcag tagttctttg atgtgaaagg ggcagcacag 300

tcattttaaac ttgatccaac ctctttgcat cttacaaagt taaacagcta aaagaagt 358

<210> 289

<211> 462

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 87, 141, 182, 220, 269, 327

<223> n = A,T,C or G

<400> 289

```
ggcatcagaa atgctgttta tttctctgct gctcccaagc tggctggcct ttgcagagga 60
gcagacaaca gatgcatagt tgggganaaa gggaggacag gttccaggat agagggtgca 120
ggctgaggga ggaagggtaa naggaaggaa ggccatcctg gatccccaca tttcagtctc 180
anatgaggac aaagggactc ccaagccccc aaatcatcan aaaacaccaa ggagcaggag 240
gagcttgagc aggcccccagg gagcctcana gccataccag ccaactgtcta cttcccatcc 300
tcctctccca ttccctgtct gcttcanacc acctcccagc taagccccag ctccattccc 360
ccaatcctgg cccttgccag cttgacagtc acagtgcctg gaattccacc actgaggctt 420
ctcccagttg gattaggacg tcgccctgtt agcatgctgc cc 462
```

<210> 290

<211> 481

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 44, 57, 122, 158, 304, 325, 352, 405

<223> n = A,T,C or G

<400> 290

```
tactttccta aactttatta aagaaaaaag caataagcaa tggnggtaaa tctctanaac 60
atacccaatt ttctgggctt cctcccccca gaatgtgaca ttttgatttc caaacatgcc 120
anaagtgtat ggttcccaac tgtactaaag taggtganaa gctgaagtcc tcaagtgttc 180
atcttccaac ttttcccagt ctgtggctctg tctttggatc agcaataatt gcctgaacag 240
ctactatggc ttcgttgatt tttgtctgta gctctctgag ctctctatg tgcagcaatc 300
gcanaatttg agcagcttca ttaanaactg catctcctgt gtcaaaacca anaatatgtt 360
tgtctaaagc aacaggtaag ccctcttttg tttgatttgc cttancaact gcatcctgtg 420
tcaggcgctc ctgaacccaa atccgaattg ccttaagcat taccaggtaa tcatcatgac 480
g 481
```

<210> 291

<211> 381

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 79, 166, 187, 208, 219, 315

<223> n = A,T,C or G

<400> 291

```

tcatagtaat gtaaaacccat ttgtttaatt ctaaatacaa tcactttcac aacagtga 60
attagtgact ggtaaaggng tgccactgta catatcatca ttttctgact ggggtcagga 120
cctggctcta gtccacaagg gtggcaggag gaggggtggag gctaanaaca cagaaaacac 180
acaaaanaaa ggaaagctgc cttggcanaa ggatgaggng gtgagcttgc cgaaggatgg 240
tggaagggg gctccctgtt ggggccgagc caggagtccc aagtcagctc tcctgcctta 300
cttagctcct ggcanagggt gagtggggac ctacgaggtt caaaatacaa tggcatttgg 360
ccagcctggc ttactaaca g                                     381

```

<210> 292

<211> 371

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 32, 55, 72, 151, 189, 292

<223> n = A,T,C or G

<400> 292

```

gaaaaaataa tccgtttaat tgaaaaacct gnaggatact attccactcc cccanatgag 60
gaggctgagg anaccaaacc cctacatcac ctctgtagcca cttctgatac tcttcacgag 120
gcagcaggca aagacaattc ccaaaacctc nacaaaagca attccaaggg ctgctgcagc 180
taccaccanc acatttttcc tcagccagcc cccaatcttc tccacacagc cctccttatg 240
gatcgcttcc tcgttgaaat taatcccaca gccacagta acattaatgc ancaggagtc 300
ggggactcgg ttcttcgaca tggaagggat tttctcccaa tctgtgtagt tagcagcccc 360
acagcactta a                                     371

```

<210> 293

<211> 361

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 75, 196, 222

<223> n = A,T,C or G

<400> 293

```

gatttaaaag aaaacacttt attgttcagc aattaaaagt tagccaaata tgtatttttc 60
tccataattt attgngatgt tatcaacatc aagtaaaatg ctcatTTtca tcatTTgctt 120
ctgttcatgt tttcttgaac acgtcttcaa ttttccttcc aaaatgctgc atgccacact 180
tgaggtaacg aagcanaagt atttttaaac atgacagcta anaacattca tctacagcaa 240
cctatatgct caatacatgc cgcgtgatcc tagtagtttt ttcacaacct tctacaagtt 300
tttgaaaaac atctgttatg atgactttca tacaccttca cctcaaaggc tttcttgcac 360
c                                     361

```

<210> 294

<211> 391

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 26, 77, 96, 150, 203, 252, 254, 264, 276

<223> n = A,T,C or G

<400> 294

```
tatttttaaag ttttaattatg attcanaaaaa aatcgagcga ataacttttct ctgaaaaaat 60
atattgactc tgtatanacc acagttattg gggganaagg gctggtaggt taaattatcc 120
tattttttat tctgaaaatg atattaatan aaagtcccgt ttccagtctg attataaaga 180
tacatatgcc caaaatggct ganaataaat acaacaggaa atgcaaaagc tgtaaagcta 240
agggcatgca ananaaaatc tcanaatacc caaagnggca acaaggaaacg tttggctgga 300
atgtgaagtt atttcagtca tctttgtcct tggctccatg tttcaggatg cgtgtgaact 360
cgatgtaatt gaaattcccc tttttatcaa t 391
```

<210> 295

<211> 343

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 145, 174, 205, 232

<223> n = A,T,C or G

<400> 295

```
ttcttttggt ttattgataa cagaaactgt gcataattac agatttgatg aggaatctgc 60
aaataataaa gaatgtgtct actgccagca aaatacaatt attccatgcc ctctcaacat 120
acaaatatag agttcttcac accanatggc tctggtgtaa caaagccatt ttanatgttt 180
aattgtgctt ctacaaaacc ttcanagcat gaggtagttt cttttaccta cnatattttc 240
cacatttcca ttattacact tttagtgagc taaaatcctt ttaacatagc ctgcggatga 300
tctttcacaa aagccaagcc tcatttacia agggtttatt tct 343
```

<210> 296

<211> 241

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 96, 98, 106, 185

<223> n = A,T,C or G

<400> 296

```
ttcttgataa ttggttggtt ttgtgaaaaa gtttttggtt ttcttctcag tcaactgaat 60
tatttctcta ctttgccctc ctgatgccca catgananaa cttaanataa tttctaacag 120
cttccacttt ggaaaaaaaa aaaacctggt ttctctcatg aaccccagga gttgaaagtg 180
gatanatcgc tctcaaaatc taaggctctg ttcagcttta cattatgtta cctgacgttt 240
t 241
```

<210> 297

<211> 391

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 12, 130

<223> n = A,T,C or G

<400> 297

```
gttgtggctg anaatgctgg agatgctcag ttctctccct cacaaggtag gccacaaatt 60
cttgggtggg ccctcacatc tgggggtcttc aggcaccagc catgcctgcc gaggagtgtc 120
gtcaggacan accatgtccg tgctaggccc aggcacagcc caaccactcc tcatccaagt 180
ctctcccagg tttctggtcc cgatgggcaa ggatgacccc tccagtggct ggtaccccac 240
catcccacta cccctcacat gctctcactc tccatcaggt cccaatcct ggcttccttc 300
ttcacgaact ctcaaagaaa aggaaggata aaacctaat aaaccagaca gaagcagctc 360
tggaaaagta caaaaagaca gccagaggtg t 391
```

<210> 298

<211> 321

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 14, 30, 76, 116, 201, 288, 301

<223> n = A,T,C or G

<400> 298

```
caagccaaac tgtntccagc tttattaaan atactttcca taaacaatca tggatatttca 60
ggcaggacat gggcanacaa tcgttaacag tatacaacaa ctttcaaact cccttnttca 120
atggactacc aaaaatcaaa aagccactat aaaacccaat gaagtcttca tctgatgtct 180
tgaacaggga aagtttaag ngagggttga catttcacat ttagcatgtt gtttaacaac 240
ttttcacaag ccgacctga ctttcaggaa gtgaaatgaa aatggcanaa tttatctgaa 300
natccacaat ctaaaaatgg a 321
```

<210> 299

<211> 401

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 104, 268, 347

<223> n = A,T,C or G

<400> 299

```
tatcataaag agtgttgaag tttatattt atagcaccat tgagacattt tgaaattgga 60
atttgtaaaa aaataaaaaca aaaagcattt gaattgtatt tggnggaaca gcaaaaaaag 120
agaagtatca tttttctttg tcaaattata ctgtttccaa acatttttga aataaataac 180
tggaattttg tcggtcactt gcaactggtt acaagattag aacaagagga acacatatgg 240
agttaaattt tttttgttgg gatttcanat agagtttggt ttataaaaag caaacagggc 300
caacgtccac accaaattct tgatcaggac caccaatgtc atagggngca atatctacaa 360
taggtagtct cacagccttg cgtgttcgat attcaaagac t 401
```

<210> 300

<211> 188

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 48

<223> n = A,T,C or G

<400> 300

```
tgaatgcttt gtcataattaa gaaagttaaa gtgcaataat gtttgaanac aataagtgg 60
gggtgatctt gtttctaata agataaactt ttttgtcttt gctttatctt attagggagt 120
tgtatgtcag tgtataaaac atactgtgtg gtataacagg cttaataaat tctttaaag 180
gaaaaaaa 188
```

<210> 301

<211> 291

<212> DNA

<213> Homo sapiens

<400> 301

```
aagattttgt tttattttat tatggctaga aagacactgt tatagccaaa atcggcaatg 60
acactaaaga aatcctctgt gcttttcaat atgcaaatat atttcttcca agagttgcc 120
tggtgtgact tcaagagttc atgttaactt cttttctgga aacttccttt tcttagttgt 180
tgtattcttg aagagcctgg gccatgaaga gcttgccctaa gttttgggca gtgaactcct 240
tgatgttctg gcagtaagtg tttatctggc ctgcaatgag cagcgagtcc a 291
```

<210> 302

<211> 341

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 25

<223> n = A,T,C or G

<400> 302

```
tgatttttca taattttatt aaatnatcac tgggaaaact aatggttcgc gtatcacaca 60
attacactac aatctgatag gagtggtaaa accagccaat ggaatccagg taaagtacaa 120
aaacgccacc ttttattgtc ctgtcttatt tctcgggaag gagggttcta ctttacacat 180
ttcatgagcc agcagtggac ttgagttaca atgtgtaggt tccttggtgt tatagctgca 240
gaagaagcca tcaaattctt gaggacttga catctctcgg aaagaagcaa actagtggat 300
ccccgggct gcaggaattc gatatcaagc ttatcgatac c 341
```

<210> 303

<211> 361

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 15, 27, 92, 124, 127, 183, 198, 244, 320

<223> n = A,T,C or G

<400> 303

```
tgcagacagt aaatnaatth tatttgngtt cacagaacat actaggcgat ctcgacagtc 60
gctccgtgac agcccaccaa cccccaaccc tntacctcgc agccacccta aaggcgactt 120
caanaanatg gaaggatctc acggatctca ttcctaattg tccgccgaag tctcacacag 180
```

```

tanacagacg gagttganat gctggaggat gcagtcacct cctaaactta cgacccacca 240
ccanacttca tcccagccgg gacgtcctcc cccacccgag tcctcccat tttttctcct 300
actttgccgc agttccaggn gtctgtcttc caccagtccc acaaagctca ataaatacca 360
a                                                                 361

```

```

<210> 304
<211> 301
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 23, 104, 192
<223> n = A,T,C or G

```

```

<400> 304
ctctttacaa cagcctttat ttncggccct tgatcctgct cggatgctgg tggaggccct 60
tagctccgcc cgccaggctc tgtgccgct cccgcaggc gcanattcat gaacacgggtg 120
ctcaggggct tgaggccgta ctccccagc gggagctggt cctccagggg cttcccctcg 180
aagggtcagcc anaacaggtc gtctgcaca cctccagcc cgtcacttg ctgcttcagg 240
tgggccacgg tctgcgtcag ccgcacctcg taggtgctgc tgcggccctt gttattcctc 300
a                                                                 301

```

```

<210> 305
<211> 331
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 3, 36, 60, 193, 223
<223> n = A,T,C or G

```

```

<400> 305
ganaggctag taacatcagt tttattgggt tggggngggca accatagcct ggctgggggn 60
ggggctggcc ctcacagggt gttgagttcc agcagggtct ggtccaaggt ctggtgaatc 120
tcgacgttct cctccttggc actggccaag gtctcttcta ggtcatcgat ggttttctcc 180
aactttgcca canacctctc ggcaaactct gctcgggtct cancctcctt cagcttctcc 240
tccaacaggt tgatctcctc ttcataatta tcttctttgg gggaatactc ctccctctgag 300
gccatcaggg acttgagggc ctggtccatg g                                                                 331

```

```

<210> 306
<211> 457
<212> DNA
<213> Homo sapiens

```

```

<400> 306
aatatgtaaa ggtaataact tttattatat taaagacaat gcaaacgaaa aacagaattg 60
agcagtgcaa aattttaaagg actgttttgt tctcaaagtt gcaagtttca aagccaaaag 120
aattatatgt atcaaatata taagtaaaaa aaagttagac tttcaagcct gtaatcccag 180
cactttggga ggctgaggca ggtggatcac taacattaaa aagacaacat tagattttgt 240
cgatttatag caattttata aatatataac tttgtcactt ggatcctgaa gcaaaataat 300
aaagtgaatt tgggattttt gtacttggtg aaaagtttaa caccctaaat tcacaactag 360
tggatcccc gggctgcagg aattcgatat caagcttatc gataccgtcg acctcgaggg 420

```


ggggcccggt acccaattcg ccctatagtg agtcgta 457

<210> 307
 <211> 491
 <212> DNA
 <213> Homo sapiens

<400> 307
 gtgcttggac ggaacccggc gctcgttccc caccgccggc ggccgcccac agccagccct 60
 ccgtcacctc ttcaccgcac cctcggactg ccccaaggcc cccgccgccg ctccagcgcc 120
 gcgcagccac cgccgccgcc gccgcctctc cttagtcgcc gccatgacga ccgcgtccac 180
 ctcgcaggtg cgccagaact accaccagga ctcagaggcc gccatcaacc gccagatcaa 240
 cctggagctc tacgcctcct acgtttacct gtccatgtct tactactttg accgcgatga 300
 tgtggctttg aagaactttg ccaaataact tcttcaccaa tctcatgagg agaggggaaca 360
 tgctgagaaa ctgatgaagc tgcagaacca acgaggtggc cgaatcttcc ttcaggatat 420
 caagaaacca gactgtgatg actgggagag cgggctgaat gcaatggagt gtgcattaca 480
 tttggaaaaa a 491

<210> 308
 <211> 421
 <212> DNA
 <213> Homo sapiens

<400> 308
 ctcagcgctt cttctttctt ggtttgatcc tgactgctgt catggcgtgc cctctggaga 60
 aggccctgga tgtgatgggtg tccaccttcc acaagtactc gggcaaagag ggtgacaagt 120
 tcaagctcaa caagtcagaa ctaaaggagc tgctgaccgc ggagctgccc agcttcttgg 180
 ggaaaaggac agatgaagct gctttccaga agctgatgag caacttggaac agcaacaggg 240
 acaacgaggt ggacttccaa gactactgtg tcttcctgtc ctgcatcgcc atgatgtgta 300
 acgaattctt tgaaggcttc ccagataagc agcccaggaa gaaatgaaaa ctctctgat 360
 gtggttgggg ggtctgccag ctggggccct cctgtcgcgc agtgggcact ttttttttcc 420
 c 421

<210> 309
 <211> 321
 <212> DNA
 <213> Homo sapiens

<400> 309
 accaaatggc ggatgacgcc ggtgcagcgg gggggcccgg gggccctggt ggccctggga 60
 tggggaaccg cggtggcttc cgcgagggtt tcggcagtgg catccggggc cggggtcgcg 120
 gccgtggacg gggccggggc cgaggccgcg gagctcgcgg aggcaaggcc gaggataagg 180
 agtggatgcc cgtcaccaag ttggggcgcg tgggtcaagg catgaagatc aagtccctgg 240
 aggagatcta tctcttctcc ctgcccatta aggaatcaga gatcattgat ttcttctctg 300
 gggcctctct caaggatgag g 321

<210> 310
 <211> 381
 <212> DNA
 <213> Homo sapiens

<400> 310
 ttaaccagcc atattggctc aataaatagc ttcggtaagg agttaatttc cttctagaaa 60
 tcagtgccta ttttctctgg aaactcaatt ttaaatagtc caattccatc tgaagccaag 120

```

ctgttgtcat tttcattcgg tgacattctc tcccatgaca cccagaaggg gcagaagaac 180
cacatttttc atttatagat gtttgcattc tttgtattaa aattattttg aaggggttgc 240
ctcattggat ggcttttttt tttttcctcc agggagaagg ggagaaatgt acttggaat 300
taatgtatgt ttacatctct ttgcaaattc ctgtacatag agatatattt ttttaagtgtg 360
aatgtaacaa catactgtga a                                     381

```

```

<210> 311
<211> 538
<212> DNA
<213> Homo sapiens

```

```

<400> 311
tttgaattta caccaagaac ttctcaataa aagaaaatca tgaatgctcc acaatttcaa 60
cataccacaa gagaagttaa tttcttaaca ttgtgttcta tgattatttg taagaccttc 120
accaagttct gatattcttt aaagacatag ttcaaaattg cttttgaaa tctgtattct 180
tgaaaatata cttgttgtgt attaggtttt taaataccag cttaaaggatt acctcactga 240
gtcatcagta ccctcctatt cagctcccca agatgatgtg tttttgctta ccctaagaga 300
ggttttcttc ttatttttag ataattcaag tgcttagata aattatgttt tctttaagtg 360
tttatggtaa actcttttaa agaaaattta atatgttata gctgaatctt tttggtaact 420
ttaaatcttt atcatagact ctgtacatat gttcaaatta gctgcttgcc tgatgtgtgt 480
atcatcgggtg ggatgacaga acaaacatat ttatgatcat gaataatgtg ctttgtaa 538

```

```

<210> 312
<211> 176
<212> DNA
<213> Homo sapiens

```

```

<400> 312
ggaggagcag ctgagagata gggtcagtga atgcggttca gcctgctacc tctcctgtct 60
tcatagaacc attgccttag aattattgta tgacacgttt tttgttggtt aagctgtaag 120
gttttgttct ttgtgaacat gggatatttg aggggagggg ggaggagta gggaag 176

```

```

<210> 313
<211> 396
<212> DNA
<213> Homo sapiens

```

```

<400> 313
ccagcacccc caggccctgg gggacctggg ttctcagact gccaaagaag ccttgccatc 60
tggcgctccc atggctcttg caacatctcc ccttcgtttt tgaggggggc atgccggggg 120
agccaccagc ccctcactgg gttcggagga gagtcaggaa gggccaagca cgacaaagca 180
gaaacatcgg atttggggaa cgcgtgtcaa tcccttgtgc cgcagggctg ggcgggagag 240
actgttctgt tccttgtgta actgtgttgc tgaaagacta cctcgttctt gtcttgatgt 300
gtcaccgggg caactgcctg ggggcgggga tgggggcagg gtggaagcgg ctccccattt 360
tataccaaag gtgctacatc tatgtgatgg gtggggg                                     396

```

```

<210> 314
<211> 311
<212> DNA
<213> Homo sapiens

```

```

<400> 314
cctcaacatc ctcagagagg actggaagcc agtccttacg ataaactcca taatttatgg 60
cctgcagtat ctcttcttgg agcccaaccc cgaggacca ctgaacaagg aggccgcaga 120

```

```

ggtcctgcag aacaaccggc ggctgtttga gcagaacgtg cagcgctcca tgcggggtgg 180
ctacatcggc tccacctact ttgagcgctg cctgaaatag ggttggcgca taccaccccc 240
cgccacggcc acaagccctg gcatccctg caaatattta ttgggggcca tgggtagggg 300
tttggggggc g                                     311

```

```

<210> 315
<211> 336
<212> DNA
<213> Homo sapiens

```

```

<400> 315
tttagaacat ggttatcatc caagactact ctaccctgca acattgaact cccaagagca 60
aatccacatt cctcttgagt tctgcagctt ctgtgtaaat agggcagctg tcgtctatgc 120
cgtagaatca catgatctga ggaccattca tggagctgc taaatagcct agtctgggga 180
gtcttccata aagttttgca tggagcaaac aaacaggatt aaactaggtt tggttccttc 240
agccctctaa aagcataggg cttagcctgc aggcttcctt gggctttctc tgtgtgtgta 300
gttttgtaaa cactatagca tctgttaaga tccagt                                     336

```

```

<210> 316
<211> 436
<212> DNA
<213> Homo sapiens

```

```

<400> 316
aacatggtct gcgtgcctta agagagacgc ttcctgcaga acaggacctg actacaaaga 60
atgtttccat tgggaattgtt ggtaaagact tggagtttac aatctatgat gatgatgatg 120
tgtctccatt cctggaaggc cttgaagaaa gaccacagag aaaggcacag cctgctcaac 180
ctgctgatga acctgcagaa aaggctgatg aaccaatgga acattaagtg ataagccagt 240
ctatatatgt attatcaaata atgtaagaat acaggcacca catactgatg acaataatct 300
atactttgaa ccaaaagttg cagagtgggtg gaatgctatg ttttaggaat cagtccagat 360
gtgagttttt tccaagcaac ctactgaaa cctatataat ggaatacatt tttctttgaa 420
agggtctgta taatca                                     436

```

```

<210> 317
<211> 196
<212> DNA
<213> Homo sapiens

```

```

<400> 317
tattccttgt gaagatgata tactatTTTT gttaagcgtg tctgtattta tgtgtgagga 60
gctgctggct tgcagtgcgc gtgcacgtgg agagctgggt cccggagatt ggacggcctg 120
atgctccctc ccctgccctg gtccaggga gctggccgag ggtcctggct cctgagggggc 180
atctgcccct ccccca                                     196

```

```

<210> 318
<211> 381
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 8, 9, 102, 122, 167, 182, 193, 235, 253, 265, 266, 290, 321,
378
<223> n = A,T,C or G

```

<400> 318

```

gacgcttnng ccgtaacgat gatcggagac atcctgctgt tcgggacgtt gctgatgaat 60
gccggggcgg tgctgaactt taagctgaaa aagaaggaca cncagggctt tggggaggag 120
tncagggagc ccaacacagg tgacaacatc cggaattct tgctgancct cagatacttt 180
cnaatcttca tcncctgtg gaacatcttc atgatgttct gcatgattgt gctgntcggc 240
tcttgaatcc cancgatgaa accannaact cactttcccg ggatgccgan tctccattcc 300
tccattcctg atgacttcaa naatgttttt gaccaaaaaa ccgacaacct tcccagaaag 360
tccaagctcg tggtagggngg a                                     381

```

<210> 319

<211> 506

<212> DNA

<213> Homo sapiens

<400> 319

```

ctaagcttta cgaatggggg gacaacttat gataaaaaact agagctagtg aattagccta 60
tttgtaaata cctttgttat aattgatagg atacatcttg gacatggaat tgtaagcca 120
cctctgagca gtgtatgtca ggacttggtc attagggttg cagcagaggg gcagaaggaa 180
ttatacaggt agagatgtat gcagatgtgt ccatatatgt ccatatttac attttgatag 240
ccattgatgt atgcatctct tggctgtact ataagaacac attaattcaa tggaaataca 300
ctttgctaata attttaattg tatagatctg ctaatgaatt ctcttaaaaa catactgtat 360
tctgttgctg tgtgtttcat tttaaattga gcattaaggg aatgcagcat ttaaatcaga 420
actctgccaa tgcttttatc tagaggcgtg ttgccatttt tgtcttatat gaaatttctg 480
tccaagaaa ggcaggatta catctt                                     506

```

<210> 320

<211> 351

<212> DNA

<213> Homo sapiens

<400> 320

```

ctgacctgca ggacgaaacc atgaagagcc tgatccttct tgccatcctg gccgccttag 60
cggtagtaac tttgtgttat gaatcacatg aaagcatgga atcttatgaa cttaatccct 120
tcattaacag gagaaatgca aataccttca tatcccctca gcagagatgg agagctaaag 180
tccaagagag gatccgagaa cgctctaagc ctgtccacga gctcaatagg gaagcctgtg 240
atgactacag actttgcgaa cgctacgcca tggtttatgg atacaatgct gcctataatc 300
gctacttcag gaagcgccga gggaccaa atgagactgagg gaagaaaaaa a                                     351

```

<210> 321

<211> 421

<212> DNA

<213> Homo sapiens

<400> 321

```

ctcggaggcg ttcagctgct tcaagatgaa gctgaacatc tccttcccag ccaactggctg 60
ccagaaactc attgaagtgg acgatgaacg caaacttcgt actttctatg agaagcgtat 120
ggccacagaa gttgctgctg acgctctggg tgaagaatgg aagggttatg tgggtccgaat 180
cagtgggtggg aacgacaaac aagggttccc catgaagcag ggtgtcttga cccatggccg 240
tgtccgcctg ctactgagta aggggcattc ctgttacaga ccaaggagaa ctggagaaag 300
aaagagaaaa tcagttcgtg gttgcattgt ggatgcaa atctgagcgttc tcaacttggg 360
tattgtaaaa aaaggagaga aggatattcc tggactgact gatactacag tgcctcgccg 420
c                                     421

```

<210> 322
 <211> 521
 <212> DNA
 <213> Homo sapiens

<400> 322
 agcagctctc ctgccacagc tcctcacccc ctgaaaatgt tcgcctgctc caagtttgtc 60
 tccactccct ccttggtcaa gagcacctca cagctgctga gccgtccgct atctgcagtg 120
 gtgctgaaac gaccggagat actgacagat gagagcctca gcagcttggc agtctcatgt 180
 ccccttacct cacttgtctc tagccgcagc ttccaaacca gcgccatttc aagggacatc 240
 gacacagcag ccaagttcat tggagctggg gctgccacag ttgggggtggc tggttctggg 300
 gctgggattg gaactgtgtt tgggagcctc atcattgggt atgccaggaa cccttctctg 360
 aagcaacagc tcttctccta cgccattctg ggctttgccc tctcggaggc catggggctc 420
 ttttgtctga tggtagcctt tctcatctc tttgccatgt gaaggagccg tctccacctc 480
 ccatagtctt cccgcgtctg gttggccccg tgtgttcctt t 521

<210> 323
 <211> 435
 <212> DNA
 <213> Homo sapiens

<400> 323
 ccgaggtcgc acgcgtgaga cttctccgcc gcagacgccg ccgcgatgcg ctacgtcgcc 60
 tcctacctgc tggtgccct agggggcaac tcctcccca gcgccaagga catcaagaag 120
 atcttggaac gcgtgggtat cgaggcggac gacgaccggc tcaacaaggt tatcagtga 180
 ctgaatggaa aaaacattga agacgtcatt gcccagggtt ttggcaagct tgccagtgt 240
 cctgctgggtg gggctgtagc cgtctctgct gccccaggct ctgcagcccc tgctgctggt 300
 tctgcccctg ctgcagcaga ggagaagaaa gatgagaaga aggaggagtc tgaagagtca 360
 gatgatgaca tgggatttgg cctttttgat taaattcctg ctcccctgca aataaagcct 420
 ttttacacat ctcaa 435

<210> 324
 <211> 521
 <212> DNA
 <213> Homo sapiens

<400> 324
 aggagatcga ctttcggtgc ccgcaagacc agggctggaa cgccgagatc acgctgcaga 60
 tgggtgcagta caagaatcgt caggccatcc tggcggtcaa atccacgcgg cagaagcagc 120
 agcacctggt ccagcagcag ccccccctgc agccgcagcc gcagccgcag ctccagcccc 180
 aaccccagcc tcagcctcag ccgcaacccc agcccgaatc acaaccccag cctcagcccc 240
 aacccaagcc tcagccccag cagctccacc cgtatccgca tccacatcca catccacact 300
 ctcatcctca ctgcaccca caccctcacc cgcacccgca tccgcaccaa ataccgcacc 360
 cacaccacaa gccgcactcg cagccgcacg ggcaccggct tctccgcagc acctccaact 420
 ctgcctgaaa ggggcagctc ccgggcaaga caaggttttg aggacttgag gaagtgggac 480
 gagcacattt ctattgtctt cacttgatc aaaagcaaaa c 521

<210> 325
 <211> 451
 <212> DNA
 <213> Homo sapiens

<400> 325
 attttcatatt ccattaacct ggaagctttc atgaatattc tcttctttta aaacatttta 60

```

acattatttta aacagaaaaa gatgggctct ttctggtttag ttgttacatg atagcagaga 120
tatttttact tagattactt tgggaatgag agattgttgt cttgaactct ggcaactgtac 180
agtgaatgtg tctgtagttg tgttagtttg cattaagcat gtataacatt caagtatgtc 240
atccaaataa gaggcataata cattgaattg tttttaatcc tctgacaagt tgactcttcg 300
acccccaccc ccacccaaga ctttttaata gtaaataagag agagagagaa gagttaatga 360
acatgaggta gtgttccact ggcaggatga cttttcaata gctcaaatca atttcagtgc 420
ctttatcact tgaattatta acttaatttg a 451

```

<210> 326

<211> 421

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 296

<223> n = A,T,C or G

<400> 326

```

cgcggtcgta agggctgagg atttttgggtc cgcacgctcc tgctcctgac tcaccgctgt 60
tcgctctcgc cgaggaacaa gtcggtcagg aagcccgcgc gcaacagcca tggcttttaa 120
ggataccgga aaaacacccg tggagccgga ggtggcaatt caccgaattc gaatcaccct 180
aacaagccgc aacgtaaaat ccttggaata ggtgtgtgct gacttgataa gaggcgcaaa 240
agaaaagaat ctcaaagtga aaggaccagt tcgaatgcct accaagactt tgagantcac 300
tacaagaaaa actccttggtg gtgaagggtc taagacgtgg gatcgtttcc agatgagaat 360
tcacaagcga ctcattgact tgcacagtc ttctgagatt gttaagcaga ttacttccat 420
c 421

```

<210> 327

<211> 456

<212> DNA

<213> Homo sapiens

<400> 327

```

atcttgacga ggctgcggtg tctgctgcta ttctccgagc ttcgcaatgc cgcctaagga 60
cgacaagaag aagaaggacg ctggaaagtc ggccaagaaa gacaaagacc cagtgaacaa 120
atccggggggc aaggccaaaa agaagaagtg gtccaaaggc aaagttcggg acaagctcaa 180
taacttagtc ttgtttgaca aagctaccta tgataaactc tgtaaggaag ttcccaacta 240
taaacttata accccagctg tggctctctga gagactgaag attcgaggct ccctggccag 300
ggcagccctt caggagctcc ttagtaaagg acttatcaaa ctggtttcaa agcacagagc 360
tcaagtaatt tacaccagaa ataccaaggg tggagatgct ccagctgctg gtgaagatgc 420
atgaataggt ccaaccagct gtacatttgg aaaaat 456

```

<210> 328

<211> 471

<212> DNA

<213> Homo sapiens

<400> 328

```

gtggaagtga catcgtcttt aaaccctgcg tggcaatccc tgacgcaccg ccgtgatgcc 60
caggaagac agggcgacct ggaagtccaa ctacttcctt aagatcatcc aactattgga 120
tgattatccg aaatgtttca ttgtgggagc agacaatgtg ggctccaagc agatgcagca 180
gatccgcatg tcccttcgcg ggaaggctgt ggtgctgatg ggcaagaaca ccatgatgcg 240
caaggccatc cgagggcacc tggaaaacaa cccagctctg gagaaactgc tgcctcatat 300

```

```

ccgggggaat gtgggctttg tgttcaccaa ggaggacctc actgagatca gggacatgtt 360
gctggccaat aaggtgccag ctgctgcccg tgctggtgcc attgcccacat gtgaagtcac 420
tgtgccagcc cagaacactg gtctcgggcc cgagaagacc tcctttttcc a 471

```

```

<210> 329
<211> 278
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 154, 204
<223> n = A,T,C or G

```

```

<400> 329
gtttaaactt aagcttggtg ccgagctcgg atccactagt ccagtgtggt ggaattctag 60
aaattgagat gcccccccag gccagcaaat gttccttttt gttcaaagtc tttttttatt 120
ccttgatatt tttctttttt tttttttttt ttngngatgg ggacttgtga atttttctaa 180
aggtgctatt taacatggga gganagcgtg tgcggctcca gccagcccg ctgctcactt 240
tccaccctct ctccacctgc ctctggettc tcaggcct 278

```

```

<210> 330
<211> 338
<212> DNA
<213> Homo sapiens

```

```

<400> 330
ctcaggcttc aacatcgaat acgcccagc ccccttcgcc ctattcttca tagccgaata 60
cacaaacatt attataataa acaccctcac cactacaatc ttcttaggaa caacatatga 120
cgcactctcc cctgaactct acacaacata ttttgtcacc aagaccctac ttctaacctc 180
cctgttctta tgaattcgaa cagcataccc ccgattccgc tacgaccaac tcatacacct 240
cctatgaaaa aacttcctac cactcacctc agcattactt atatgatatg tctccatacc 300
cattacaatc tccagcattc cccctcaaac ctaaaaaa 338

```

```

<210> 331
<211> 2820
<212> DNA
<213> Homo sapiens

```

```

<400> 331
tggcaaaatc ctggagccag aagaaaggac agcagcattg atcaatctta cagctaacat 60
gttgtagctg gaaaacaatg cccagactca atttagtgag ccacagtaca cgaacctggg 120
gctctgaac agcatggacc agcagattcg gaacggctcc tcgtccacca gtccctataa 180
cacagaccac gcgcagaaca gcgtcacggc gccctcgccc tacgcacagc ccagccccac 240
cttcgatgct ctctctccat cacccgccat cccctccaac accgactacc caggccccga 300
cagttccgac gtgtccttcc agcagtcgag caccgccaag tcggccacct ggacgtattc 360
cactgaactg aagaaactct actgccaaat tgcaaagaca tgcccatcc agatcaagggt 420
gatgacccca cctcctcagg gagctgttat ccgcgccatg cctgtctaca aaaaagctga 480
gcacgtcacg gaggtggtga agcggtgccc caaccatgag ctgagccgtg agttcaacga 540
gggacagatt gccctccta gtcatttgat tcgagtagag gggaacagcc atgccagta 600
tgtagaagat cccatcacag gaagacagag tgtgctggta ccttatgagc caccacaggt 660
tggcactgaa ttcacgacag tcttgtacaa tttcatgtgt aacagcagtt gtgttgaggg 720
gatgaaccgc cgtccaattt taatcattgt tactctggaa accagagatg ggcaagtcct 780
gggccgacgc tgctttgagg cccgatctg tgcttgccca ggaagagaca ggaaggcgga 840

```

```

tgaagatagc atcagaaaagc agcaagtttc ggacagtaca aagaacggtg atggtacgaa 900
gcgcccgttt cgtcagaaca cacatggtat ccagatgaca tccatcaaga aacgaagatc 960
cccagatgat gaactgttat acttaccagt gaggggccgt gagacttatg aaatgctgtt 1020
gaagatcaaa gagtccctgg aactcatgca gtaccttcct cagcacacaa ttgaaacgta 1080
caggcaacag caacagcagc agcaccagca cttacttcag aaacagacct caatacagtc 1140
tccatcttca tatggtaaca gctccccacc tctgaacaaa atgaacagca tgaacaagct 1200
gccttctgtg agccagctta tcaacctca gcagcgcaac gccctcactc ctacaaccat 1260
tcctgatggc atgggagcca acattcccat gatgggcacc cacatgcaa tggctggaga 1320
catgaatgga ctcagcccca cccaggcact ccctcccca ctctccatgc catccacctc 1380
ccactgcaca cccccacctc cgtatccac agattgcagc attgtcagtt tcttagcgag 1440
gttgggctgt tcatcatgtc tggactatth cagacccag gggctgacca ccatctatca 1500
gattgagcat tactccatgg atgatctggc aagtctgaaa atccctgagc aatttcgaca 1560
tgcgatctgg aaggcatcc tggaccaccg gcagctccac gaattctcct ccccttctca 1620
tctcctgagg accccaagca gtgcctctac agtcagtgtg ggctccagtg agaccgggg 1680
tgagcgtgtt attgatgctg tgcgattcac cctccgccag accatctctt tcccaccccg 1740
agatgagtgg aatgacttca actttgacat ggatgctcgc cgcaataagc aacagcgcat 1800
caaagaggag ggggagtgg cctcaccatg tgagctcttc ctatccctct cctaactgcc 1860
agccccctaa aagcactcct gcttaatctt caaagccttc tccctagctc ctccccttcc 1920
tcttgtctga tttcttaggg gaaggagaag taaggagcta cctcttacct aacatctgac 1980
ctggcatcta attctgattc tggctttaag ccttcaaaac tatagcttgc agaactgtag 2040
ctgccatggc taggtagaag tgagcaaaaa agagttgggt gtctccttaa gctgcagaga 2100
tttctcattg acttttataa agcatgttca cccttatagt ctaagactat atatataaat 2160
gtataaatat acagtataga tttttgggtg gggggcattg agtattgttt aaaatgtaat 2220
ttaaatgaaa gaaaattgag ttgcacttat tgaccatttt ttaatttact tgttttgat 2280
ggcttgtcta tactccttcc ctttaaggggt atcatgtatg gtgataggta tctagagctt 2340
aatgctacat gtgagtgcga tgatgtacag attctttcag ttctttggat tctaaatata 2400
tgccacatca aacctttgag tagatccatt tccattgctt attatgtagg taagactgta 2460
gatatgtatt cttttctcag tgttgggtata ttttatatta ctgacatttc ttctagtgat 2520
gatggttcac gttgggggtga ttttaatccag ttataagaag aagttcatgt ccaaacgggtc 2580
ctcttttagtt tttggttggg aatgaggaaa attcttaaaa ggcccatagc agccagttca 2640
aaaaaccccg acgtcatgta tttgagcata tcagtaacct ccttaaattt aatacccaga 2700
taacctatct tacaatgttg attgggaaaa catttgctgc ccattacaga ggtattaaaa 2760
ctaaatttca ctactagatt gactaactca aatacacatt tgctactgtt gtaagaattc 2820

```

<210> 332

<211> 2270

<212> DNA

<213> Homo sapiens

<400> 332

```

tcgttgatat caaagacagt tgaaggaaat gaattttgaa acttcacggt gtgccaccct 60
acagtactgc cctgaccctt acatccagcg tttcgtagaa acccagctca tttctcttgg 120
aaagaaagt attaccgatc caccatgtcc cagagcacac agacaaatga attcctcagt 180
ccagaggttt tccagcatat ctgggatttt ctggaacagc ctatatgttc agttcagccc 240
attgacttga actttgtgga tgaaccatca gaagatgggt cgacaaacaa gattgagatt 300
agcatggact gtatccgcat gcaggactcg gacctgagtg accccatgtg gccacagtac 360
acgaacctgg ggctcctgaa cagcatggac cagcagattc agaacggctc ctcgctccacc 420
agtccctata acacagacca cgcgcagaa agcgtcacgg cgccctcgcc ctacgcacag 480
cccagctcca ccttcgatgc tctctctcca tcaccgcca tcccctccaa caccgactac 540
ccaggcccg acagtttcga cgtgtccttc cagcagtcga gcaccgcaa gtcggccacc 600
tggaactgatt cactgaact gaagaaactc tactgcaaaa ttgcaaagac atgccccatc 660
cagatcaagg tgatgacccc acctcctcag ggagctgtta tccgcgcat gcctgtctac 720
aaaaaagctg agcacgtcac ggaggtgggt aagcggtgcc ccaaccatga gctgagccgt 780

```



```

gaattcaacg agggacagat tgccctcct agtcatttga ttcgagtaga ggggaacagc 840
catgcccagt atgtagaaga tcccatcaca ggaagacaga gtgtgctggt accttatgag 900
ccaccccagg ttggcactga attcacgaca gtcttgtaca atttcatgtg taacagcagt 960
tgtgttgagg ggatgaaccg ccgtccaatt ttaatcattg ttactctgga aaccagagat 1020
gggcaagtcc tgggccgacg ctgctttgag gcccgatct gtgcttgccc aggaagagac 1080
aggaaggcgg atgaagatag catcagaaag cagcaagttt cggacagtac aaagaacggt 1140
gatggtacga agcgcctgtt tcgtcagaac acacatggta tccagatgac atccatcaag 1200
aaacgaagat cccagatga tgaactgtta tacttaccag tgaggggccc tgagacttat 1260
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<210> 333

<211> 2816

<212> DNA

<213> Homo sapiens

<400> 333

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<210> 334

<211> 2082

<212> DNA

<213> Homo sapiens

<400> 334

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| cacacaattg | aaacgtacag | gcaacagcaa | cagcagcagc | accagcactt | acttcagaaa | 1500 |
| cagttagtgt | atcaacgtgt | catttttagga | ggcatgagt | acggtgactt | tatttgatc | 1560 |
| agcaatagg | tgattgatga | gcaatgtgga | acataatggg | agatagcaga | ttgtcataga | 1620 |
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| catcccaatg | gattgtctta | taaatctcct | gggatgcaca | ctatccactt | ttgggaataa | 1920 |
| cactgtagac | cagggatagc | aaataggctt | tactataata | taaagtgact | tgtttgaatg | 1980 |
| ctgtaatgag | aagaattctg | agacctagtg | catgataatt | ggggaaatat | ctgggtgcag | 2040 |
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<210> 335

<211> 4849

<212> DNA

<213> Homo sapiens

<400> 335

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| cagtactgcc | ctgaccctta | catccagcgt | ttcgtagaaa | ccccagctca | tttctcttgg | 120 |
| aaagaaagtt | attaccgatc | caccatgtcc | cagagcacac | agacaaatga | attcctcagt | 180 |
| ccagaggttt | tccagcatat | ctgggatttt | ctggaacagc | ctatatgttc | agttcagccc | 240 |
| attgacttga | actttgtgga | tgaaccatca | gaagatggtg | cgacaaacaa | gattgagatt | 300 |
| agcatggact | gtatccgcat | gcaggactcg | gacctgagt | accccatgtg | gccacagtac | 360 |
| acgaacctgg | ggctcctgaa | cagcatggac | cagcagattc | agaacggctc | ctcgtccacc | 420 |
| agtccctata | acacagacca | cgcgacaga | agcgacagc | cgccctcgcc | ctacgcacag | 480 |
| cccagctcca | ccttcgatgc | tctctctcca | tcacccgcca | tccctccaa | caccgactac | 540 |
| ccaggcccgc | acagtttcga | cgtgtccttc | cagcagtcga | gcaccgcaa | gtcggccacc | 600 |
| tggacgtatt | ccactgaact | gaagaaactc | tactgcaaaa | ttgcaaagac | atgccccatc | 660 |
| cagatcaagg | tgatgacccc | acctcctcag | ggagctgtta | tccgcgccat | gcctgtctac | 720 |
| aaaaaagctg | agcacgtcac | ggagggtggt | aagcggtgcc | ccaacatga | gctgagccgt | 780 |
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| ccaccccagg | ttggcactga | attcacgaca | gtcttgtaca | atttcatgtg | taacagcagt | 960 |
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| aaacgaagat | ccccagatga | tgaactgtta | tacttaccag | tgaggggccc | tgagacttat | 1260 |
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| caatttcgac | atgcgatctg | gaagggcac | ctggaccacc | ggcagctcca | cgaattctcc | 1860 |
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| gagaccggg | gtgagcgtgt | tattgatgct | gtgcgattca | ccctccgcca | gaccatctct | 1980 |
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<212> DNA

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<211> 1551

<212> DNA

<213> Homo sapiens

<400> 337

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ccatcagaag atggtgcgac aaacaagatt gagattagca tggactgtat ccgcatgcag 180
gactcggacc tgagtgaccc catgtggcca cagtacacga acctggggct cctgaacagc 240
atggaccagc agattcagaa cggctcctcg tccaccagtc cctataacac agaccacgcg 300
cagaacagcg tcacggcgcc ctgcacctac gcacagccca gctccacctt cgatgctctc 360
tctccatcac ccgccaatcc ctccaacacc gactaccag gcccgcacag ttctgacgtg 420
tccttcagc agtcgagcac cgccaagtcg gccacctgga cgtattccac tgaactgaag 480
aaactctact gccaaattgc aaagacatgc cccatccaga tcaaggtgat gacccacct 540
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ggagccaaca ttcccatgat gggcaccac atgccaatgg ctggagacat gaatggactc 1440
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<210> 338

<211> 586

<212> PRT

<213> Homo sapiens

<400> 338

| | | | | | | | | | | | | | | | |
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| Met | Leu | Tyr | Leu | Glu | Asn | Asn | Ala | Gln | Thr | Gln | Phe | Ser | Glu | Pro | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Tyr | Thr | Asn | Leu | Gly | Leu | Leu | Asn | Ser | Met | Asp | Gln | Gln | Ile | Arg | Asn |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Gly | Ser | Ser | Ser | Thr | Ser | Pro | Tyr | Asn | Thr | Asp | His | Ala | Gln | Asn | Ser |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Val | Thr | Ala | Pro | Ser | Pro | Tyr | Ala | Gln | Pro | Ser | Pro | Thr | Phe | Asp | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Ser | Pro | Ser | Pro | Ala | Ile | Pro | Ser | Asn | Thr | Asp | Tyr | Pro | Gly | Pro |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| His | Ser | Ser | Asp | Val | Ser | Phe | Gln | Gln | Ser | Ser | Thr | Ala | Lys | Ser | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Thr | Trp | Thr | Tyr | Ser | Thr | Glu | Leu | Lys | Lys | Leu | Tyr | Cys | Gln | Ile | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Thr | Cys | Pro | Ile | Gln | Ile | Lys | Val | Met | Thr | Pro | Pro | Pro | Gln | Gly |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Ala | Val | Ile | Arg | Ala | Met | Pro | Val | Tyr | Lys | Lys | Ala | Glu | His | Val | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Val | Val | Lys | Arg | Cys | Pro | Asn | His | Glu | Leu | Ser | Arg | Glu | Phe | Asn |
| 145 | | | | | 150 | | | | 155 | | | | | 160 | |
| Glu | Gly | Gln | Ile | Ala | Pro | Pro | Ser | His | Leu | Ile | Arg | Val | Glu | Gly | Asn |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Ser | His | Ala | Gln | Tyr | Val | Glu | Asp | Pro | Ile | Thr | Gly | Arg | Gln | Ser | Val |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Leu | Val | Pro | Tyr | Glu | Pro | Pro | Gln | Val | Gly | Thr | Glu | Phe | Thr | Thr | Val |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Leu | Tyr | Asn | Phe | Met | Cys | Asn | Ser | Ser | Cys | Val | Gly | Gly | Met | Asn | Arg |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Arg | Pro | Ile | Leu | Ile | Ile | Val | Thr | Leu | Glu | Thr | Arg | Asp | Gly | Gln | Val |
| 225 | | | | | 230 | | | | 235 | | | | | 240 | |
| Leu | Gly | Arg | Arg | Cys | Phe | Glu | Ala | Arg | Ile | Cys | Ala | Cys | Pro | Gly | Arg |
| | | | 245 | | | | | 250 | | | | | 255 | | |
| Asp | Arg | Lys | Ala | Asp | Glu | Asp | Ser | Ile | Arg | Lys | Gln | Gln | Val | Ser | Asp |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Ser | Thr | Lys | Asn | Gly | Asp | Gly | Thr | Lys | Arg | Pro | Phe | Arg | Gln | Asn | Thr |
| | 275 | | | | | 280 | | | | | | 285 | | | |
| His | Gly | Ile | Gln | Met | Thr | Ser | Ile | Lys | Lys | Arg | Arg | Ser | Pro | Asp | Asp |
| | 290 | | | | | 295 | | | | 300 | | | | | |
| Glu | Leu | Leu | Tyr | Leu | Pro | Val | Arg | Gly | Arg | Glu | Thr | Tyr | Glu | Met | Leu |
| 305 | | | | | 310 | | | | 315 | | | | | 320 | |
| Leu | Lys | Ile | Lys | Glu | Ser | Leu | Glu | Leu | Met | Gln | Tyr | Leu | Pro | Gln | His |
| | | | 325 | | | | | 330 | | | | | 335 | | |
| Thr | Ile | Glu | Thr | Tyr | Arg | Gln | Gln | Gln | Gln | Gln | Gln | His | Gln | His | Leu |
| | | | 340 | | | | 345 | | | | | | 350 | | |

Leu Gln Lys Gln Thr Ser Ile Gln Ser Pro Ser Ser Tyr Gly Asn Ser
 355 360 365
 Ser Pro Pro Leu Asn Lys Met Asn Ser Met Asn Lys Leu Pro Ser Val
 370 375 380
 Ser Gln Leu Ile Asn Pro Gln Gln Arg Asn Ala Leu Thr Pro Thr Thr
 385 390 395 400
 Ile Pro Asp Gly Met Gly Ala Asn Ile Pro Met Met Gly Thr His Met
 405 410 415
 Pro Met Ala Gly Asp Met Asn Gly Leu Ser Pro Thr Gln Ala Leu Pro
 420 425 430
 Pro Pro Leu Ser Met Pro Ser Thr Ser His Cys Thr Pro Pro Pro Pro
 435 440 445
 Tyr Pro Thr Asp Cys Ser Ile Val Ser Phe Leu Ala Arg Leu Gly Cys
 450 455 460
 Ser Ser Cys Leu Asp Tyr Phe Thr Thr Gln Gly Leu Thr Thr Ile Tyr
 465 470 475 480
 Gln Ile Glu His Tyr Ser Met Asp Asp Leu Ala Ser Leu Lys Ile Pro
 485 490 495
 Glu Gln Phe Arg His Ala Ile Trp Lys Gly Ile Leu Asp His Arg Gln
 500 505 510
 Leu His Glu Phe Ser Ser Pro Ser His Leu Leu Arg Thr Pro Ser Ser
 515 520 525
 Ala Ser Thr Val Ser Val Gly Ser Ser Glu Thr Arg Gly Glu Arg Val
 530 535 540
 Ile Asp Ala Val Arg Phe Thr Leu Arg Gln Thr Ile Ser Phe Pro Pro
 545 550 555 560
 Arg Asp Glu Trp Asn Asp Phe Asn Phe Asp Met Asp Ala Arg Arg Asn
 565 570 575
 Lys Gln Gln Arg Ile Lys Glu Glu Gly Glu
 580 585

<210> 339
 <211> 641
 <212> PRT
 <213> Homo sapiens

<400> 339
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 Ile Asp Leu Asn Phe Val Asp Glu Pro Ser Glu Asp Gly Ala Thr Asn
 35 40 45
 Lys Ile Glu Ile Ser Met Asp Cys Ile Arg Met Gln Asp Ser Asp Leu
 50 55 60
 Ser Asp Pro Met Trp Pro Gln Tyr Thr Asn Leu Gly Leu Leu Asn Ser
 65 70 75 80
 Met Asp Gln Gln Ile Gln Asn Gly Ser Ser Ser Thr Ser Pro Tyr Asn
 85 90 95
 Thr Asp His Ala Gln Asn Ser Val Thr Ala Pro Ser Pro Tyr Ala Gln
 100 105 110
 Pro Ser Ser Thr Phe Asp Ala Leu Ser Pro Ser Pro Ala Ile Pro Ser
 115 120 125

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Thr | Asp | Tyr | Pro | Gly | Pro | His | Ser | Phe | Asp | Val | Ser | Phe | Gln | Gln |
| 130 | | | | | | 135 | | | | | 140 | | | | |
| Ser | Ser | Thr | Ala | Lys | Ser | Ala | Thr | Trp | Thr | Tyr | Ser | Thr | Glu | Leu | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Lys | Leu | Tyr | Cys | Gln | Ile | Ala | Lys | Thr | Cys | Pro | Ile | Gln | Ile | Lys | Val |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Met | Thr | Pro | Pro | Pro | Gln | Gly | Ala | Val | Ile | Arg | Ala | Met | Pro | Val | Tyr |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Lys | Lys | Ala | Glu | His | Val | Thr | Glu | Val | Val | Lys | Arg | Cys | Pro | Asn | His |
| | | 195 | | | | | 200 | | | | 205 | | | | |
| Glu | Leu | Ser | Arg | Glu | Phe | Asn | Glu | Gly | Gln | Ile | Ala | Pro | Pro | Ser | His |
| 210 | | | | | | 215 | | | | | 220 | | | | |
| Leu | Ile | Arg | Val | Glu | Gly | Asn | Ser | His | Ala | Gln | Tyr | Val | Glu | Asp | Pro |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ile | Thr | Gly | Arg | Gln | Ser | Val | Leu | Val | Pro | Tyr | Glu | Pro | Pro | Gln | Val |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gly | Thr | Glu | Phe | Thr | Thr | Val | Leu | Tyr | Asn | Phe | Met | Cys | Asn | Ser | Ser |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Cys | Val | Gly | Gly | Met | Asn | Arg | Arg | Pro | Ile | Leu | Ile | Ile | Val | Thr | Leu |
| | | 275 | | | | 280 | | | | | 285 | | | | |
| Glu | Thr | Arg | Asp | Gly | Gln | Val | Leu | Gly | Arg | Arg | Cys | Phe | Glu | Ala | Arg |
| 290 | | | | | | 295 | | | | | 300 | | | | |
| Ile | Cys | Ala | Cys | Pro | Gly | Arg | Asp | Arg | Lys | Ala | Asp | Glu | Asp | Ser | Ile |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Arg | Lys | Gln | Gln | Val | Ser | Asp | Ser | Thr | Lys | Asn | Gly | Asp | Gly | Thr | Lys |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Arg | Pro | Phe | Arg | Gln | Asn | Thr | His | Gly | Ile | Gln | Met | Thr | Ser | Ile | Lys |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Lys | Arg | Arg | Ser | Pro | Asp | Asp | Glu | Leu | Leu | Tyr | Leu | Pro | Val | Arg | Gly |
| | | 355 | | | | 360 | | | | | | 365 | | | |
| Arg | Glu | Thr | Tyr | Glu | Met | Leu | Leu | Lys | Ile | Lys | Glu | Ser | Leu | Glu | Leu |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Met | Gln | Tyr | Leu | Pro | Gln | His | Thr | Ile | Glu | Thr | Tyr | Arg | Gln | Gln | Gln |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Gln | Gln | Gln | His | Gln | His | Leu | Leu | Gln | Lys | Gln | Thr | Ser | Ile | Gln | Ser |
| | | | 405 | | | | | | 410 | | | | 415 | | |
| Pro | Ser | Ser | Tyr | Gly | Asn | Ser | Ser | Pro | Pro | Leu | Asn | Lys | Met | Asn | Ser |
| | | | 420 | | | | | 425 | | | | 430 | | | |
| Met | Asn | Lys | Leu | Pro | Ser | Val | Ser | Gln | Leu | Ile | Asn | Pro | Gln | Gln | Arg |
| | | 435 | | | | | 440 | | | | 445 | | | | |
| Asn | Ala | Leu | Thr | Pro | Thr | Thr | Ile | Pro | Asp | Gly | Met | Gly | Ala | Asn | Ile |
| | | 450 | | | | 455 | | | | | 460 | | | | |
| Pro | Met | Met | Gly | Thr | His | Met | Pro | Met | Ala | Gly | Asp | Met | Asn | Gly | Leu |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Ser | Pro | Thr | Gln | Ala | Leu | Pro | | | | | | | | | |

[illegible]

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<210> 340
<211> 448
<212> PRT
<213> Homo sapiens
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| | | | | | | | | | | | | | | | |
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| <400> 340 | | | | | | | | | | | | | | | |
| Met | Ser | Gln | Ser | Thr | Gln | Thr | Asn | Glu | Phe | Leu | Ser | Pro | Glu | Val | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | His | Ile | Trp | Asp | Phe | Leu | Glu | Gln | Pro | Ile | Cys | Ser | Val | Gln | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Asp | Leu | Asn | Phe | Val | Asp | Glu | Pro | Ser | Glu | Asp | Gly | Ala | Thr | Asn |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Lys | Ile | Glu | Ile | Ser | Met | Asp | Cys | Ile | Arg | Met | Gln | Asp | Ser | Asp | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Asp | Pro | Met | Trp | Pro | Gln | Tyr | Thr | Asn | Leu | Gly | Leu | Leu | Asn | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Met | Asp | Gln | Gln | Ile | Gln | Asn | Gly | Ser | Ser | Ser | Thr | Ser | Pro | Tyr | Asn |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Thr | Asp | His | Ala | Gln | Asn | Ser | Val | Thr | Ala | Pro | Ser | Pro | Tyr | Ala | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | Ser | Ser | Thr | Phe | Asp | Ala | Leu | Ser | Pro | Ser | Pro | Ala | Ile | Pro | Ser |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Asn | Thr | Asp | Tyr | Pro | Gly | Pro | His | Ser | Phe | Asp | Val | Ser | Phe | Gln | Gln |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ser | Ser | Thr | Ala | Lys | Ser | Ala | Thr | Trp | Thr | Tyr | Ser | Thr | Glu | Leu | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Lys | Leu | Tyr | Cys | Gln | Ile | Ala | Lys | Thr | Cys | Pro | Ile | Gln | Ile | Lys | Val |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Met | Thr | Pro | Pro | Pro | Gln | Gly | Ala | Val | Ile | Arg | Ala | Met | Pro | Val | Tyr |
| | | | | 180 | | | | 185 | | | | | 190 | | |
| Lys | Lys | Ala | Glu | His | Val | Thr | Glu | Val | Val | Lys | Arg | Cys | Pro | Asn | His |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Leu | Ser | Arg | Glu | Phe | Asn | Glu | Gly | Gln | Ile | Ala | Pro | Pro | Ser | His |
| | | | | | | 215 | | | | | 220 | | | | |
| Leu | Ile | Arg | Val | Glu | Gly | Asn | Ser | His | Ala | Gln | Tyr | Val | Glu | Asp | Pro |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ile | Thr | Gly | Arg | Gln | Ser | Val | Leu | Val | Pro | Tyr | Glu | Pro | Pro | Gln | Val |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gly | Thr | Glu | Phe | Thr | Thr | Val | Leu | Tyr | Asn | Phe | Met | Cys | Asn | Ser | Ser |
| | | | 260 | | | | | 265 | | | | | 270 | | |

Cys Val Gly Gly Met Asn Arg Arg Pro Ile Leu Ile Ile Val Thr Leu
 275 280 285
 Glu Thr Arg Asp Gly Gln Val Leu Gly Arg Arg Cys Phe Glu Ala Arg
 290 295 300
 Ile Cys Ala Cys Pro Gly Arg Asp Arg Lys Ala Asp Glu Asp Ser Ile
 305 310 315 320
 Arg Lys Gln Gln Val Ser Asp Ser Thr Lys Asn Gly Asp Gly Thr Lys
 325 330 335
 Arg Pro Phe Arg Gln Asn Thr His Gly Ile Gln Met Thr Ser Ile Lys
 340 345 350
 Lys Arg Arg Ser Pro Asp Asp Glu Leu Leu Tyr Leu Pro Val Arg Gly
 355 360 365
 Arg Glu Thr Tyr Glu Met Leu Leu Lys Ile Lys Glu Ser Leu Glu Leu
 370 375 380
 Met Gln Tyr Leu Pro Gln His Thr Ile Glu Thr Tyr Arg Gln Gln Gln
 385 390 395 400
 Gln Gln Gln His Gln His Leu Leu Gln Lys His Leu Leu Ser Ala Cys
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 Phe Arg Asn Glu Leu Val Glu Pro Arg Arg Glu Thr Pro Lys Gln Ser
 420 425 430
 Asp Val Phe Phe Arg His Ser Lys Pro Pro Asn Arg Ser Val Tyr Pro
 435 440 445

<210> 341
 <211> 356
 <212> PRT
 <213> Homo sapiens

<400> 341
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 Gly Ser Ser Ser Thr Ser Pro Tyr Asn Thr Asp His Ala Gln Asn Ser
 35 40 45
 Val Thr Ala Pro Ser Pro Tyr Ala Gln Pro Ser Ser Thr Phe Asp Ala
 50 55 60
 Leu Ser Pro Ser Pro Ala Ile Pro Ser Asn Thr Asp Tyr Pro Gly Pro
 65 70 75 80
 His Ser Phe Asp Val Ser Phe Gln Gln Ser Ser Thr Ala Lys Ser Ala
 85 90 95
 Thr Trp Thr Tyr Ser Thr Glu Leu Lys Lys Leu Tyr Cys Gln Ile Ala
 100 105 110
 Lys Thr Cys Pro Ile Gln Ile Lys Val Met Thr Pro Pro Pro Gln Gly
 115 120 125
 Ala Val Ile Arg Ala Met Pro Val Tyr Lys Lys Ala Glu His Val Thr
 130 135 140
 Glu Val Val Lys Arg Cys Pro Asn His Glu Leu Ser Arg Glu Phe Asn
 145 150 155 160
 Glu Gly Gln Ile Ala Pro Pro Ser His Leu Ile Arg Val Glu Gly Asn
 165 170 175
 Ser His Ala Gln Tyr Val Glu Asp Pro Ile Thr Gly Arg Gln Ser Val
 180 185 190

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Leu Val Pro Tyr Glu Pro Pro Gln Val Gly Thr Glu Phe Thr Thr Val
    195                                200                205
Leu Tyr Asn Phe Met Cys Asn Ser Ser Cys Val Gly Gly Met Asn Arg
    210                                215                220
Arg Pro Ile Leu Ile Ile Val Thr Leu Glu Thr Arg Asp Gly Gln Val
    225                                230                235                240
Leu Gly Arg Arg Cys Phe Glu Ala Arg Ile Cys Ala Cys Pro Gly Arg
    245                                250                255
Asp Arg Lys Ala Asp Glu Asp Ser Ile Arg Lys Gln Gln Val Ser Asp
    260                                265                270
Ser Thr Lys Asn Gly Asp Gly Thr Lys Arg Pro Ser Arg Gln Asn Thr
    275                                280                285
His Gly Ile Gln Met Thr Ser Ile Lys Lys Arg Arg Ser Pro Asp Asp
    290                                295                300
Glu Leu Leu Tyr Leu Pro Val Arg Gly Arg Glu Thr Tyr Glu Met Leu
    305                                310                315                320
Leu Lys Ile Lys Glu Ser Leu Glu Leu Met Gln Tyr Leu Pro Gln His
    325                                330                335
Thr Ile Glu Thr Tyr Arg Gln Gln Gln Gln Gln His Gln His Leu
    340                                345                350
Leu Gln Lys Gln
    355

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<210> 342

<211> 680

<212> .PRT

<213> Homo sapiens

<400> 342

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Met Asn Phe Glu Thr Ser Arg Cys Ala Thr Leu Gln Tyr Cys Pro Asp
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Pro Tyr Ile Gln Arg Phe Val Glu Thr Pro Ala His Phe Ser Trp Lys
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Glu Ser Tyr Tyr Arg Ser Thr Met Ser Gln Ser Thr Gln Thr Asn Glu
    35          40          45
Phe Leu Ser Pro Glu Val Phe Gln His Ile Trp Asp Phe Leu Glu Gln
    50          55          60
Pro Ile Cys Ser Val Gln Pro Ile Asp Leu Asn Phe Val Asp Glu Pro
    65          70          75          80
Ser Glu Asp Gly Ala Thr Asn Lys Ile Glu Ile Ser Met Asp Cys Ile
    85          90          95
Arg Met Gln Asp Ser Asp Leu Ser Asp Pro Met Trp Pro Gln Tyr Thr
    100         105         110
Asn Leu Gly Leu Leu Asn Ser Met Asp Gln Gln Ile Gln Asn Gly Ser
    115         120         125
Ser Ser Thr Ser Pro Tyr Asn Thr Asp His Ala Gln Asn Ser Val Thr
    130         135         140
Ala Pro Ser Pro Tyr Ala Gln Pro Ser Ser Thr Phe Asp Ala Leu Ser
    145         150         155         160
Pro Ser Pro Ala Ile Pro Ser Asn Thr Asp Tyr Pro Gly Pro His Ser
    165         170         175
Phe Asp Val Ser Phe Gln Gln Ser Ser Thr Ala Lys Ser Ala Thr Trp
    180         185         190

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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Tyr | Ser | Thr | Glu | Leu | Lys | Lys | Leu | Tyr | Cys | Gln | Ile | Ala | Lys | Thr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Cys | Pro | Ile | Gln | Ile | Lys | Val | Met | Thr | Pro | Pro | Pro | Gln | Gly | Ala | Val |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Arg | Ala | Met | Pro | Val | Tyr | Lys | Lys | Ala | Glu | His | Val | Thr | Glu | Val |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Val | Lys | Arg | Cys | Pro | Asn | His | Glu | Leu | Ser | Arg | Glu | Phe | Asn | Glu | Gly |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gln | Ile | Ala | Pro | Pro | Ser | His | Leu | Ile | Arg | Val | Glu | Gly | Asn | Ser | His |
| | | | 260 | | | | | 265 | | | | | | 270 | |
| Ala | Gln | Tyr | Val | Glu | Asp | Pro | Ile | Thr | Gly | Arg | Gln | Ser | Val | Leu | Val |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Pro | Tyr | Glu | Pro | Pro | Gln | Val | Gly | Thr | Glu | Phe | Thr | Thr | Val | Leu | Tyr |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asn | Phe | Met | Cys | Asn | Ser | Ser | Cys | Val | Gly | Gly | Met | Asn | Arg | Arg | Pro |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ile | Leu | Ile | Ile | Val | Thr | Leu | Glu | Thr | Arg | Asp | Gly | Gln | Val | Leu | Gly |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Arg | Arg | Cys | Phe | Glu | Ala | Arg | Ile | Cys | Ala | Cys | Pro | Gly | Arg | Asp | Arg |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Lys | Ala | Asp | Glu | Asp | Ser | Ile | Arg | Lys | Gln | Gln | Val | Ser | Asp | Ser | Thr |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Lys | Asn | Gly | Asp | Gly | Thr | Lys | Arg | Pro | Phe | Arg | Gln | Asn | Thr | His | Gly |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ile | Gln | Met | Thr | Ser | Ile | Lys | Lys | Arg | Arg | Ser | Pro | Asp | Asp | Glu | Leu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Leu | Tyr | Leu | Pro | Val | Arg | Gly | Arg | Glu | Thr | Tyr | Glu | Met | Leu | Leu | Lys |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Ile | Lys | Glu | Ser | Leu | Glu | Leu | Met | Gln | Tyr | Leu | Pro | Gln | His | Thr | Ile |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Glu | Thr | Tyr | Arg | Gln | Gln | Gln | Gln | Gln | Gln | His | Gln | His | Leu | Leu | Gln |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Lys | Gln | Thr | Ser | Ile | Gln | Ser | Pro | Ser | Ser | Tyr | Gly | Asn | Ser | Ser | Pro |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Pro | Leu | Asn | Lys | Met | Asn | Ser | Met | Asn | Lys | Leu | Pro | Ser | Val | Ser | Gln |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Leu | Ile | Asn | Pro | Gln | Gln | Arg | Asn | Ala | Leu | Thr | Pro | Thr | Thr | Ile | Pro |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Asp | Gly | Met | Gly | Ala | Asn | Ile | Pro | Met | Met | Gly | Thr | His | Met | Pro | Met |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Ala | Gly | Asp | Met | Asn | Gly | Leu | Ser | Pro | Thr | Gln | Ala | Leu | Pro | Pro | Pro |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Leu | Ser | Met | Pro | Ser | Thr | Ser | Gln | Cys | Thr | Pro | Pro | Pro | Pro | Tyr | Pro |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Thr | Asp | Cys | Ser | Ile | Val | Ser | Phe | Leu | Ala | Arg | Leu | Gly | Cys | Ser | Ser |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Cys | Leu | Asp | Tyr | Phe | Thr | Thr | Gln | Gly | Leu | Thr | Thr | Ile | Tyr | Gln | Ile |
| | | | | 565 | | | | 570 | | | | | | 575 | |
| Glu | His | Tyr | Ser | Met | Asp | Asp | Leu | Ala | Ser | Leu | Lys | Ile | Pro | Glu | Gln |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Phe | Arg | His | Ala | Ile | Trp | Lys | Gly | Ile | Leu | Asp | His | Arg | Gln | Leu | His |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Glu | Phe | Ser | Ser | Pro | Ser | His | Leu | Leu | Arg | Thr | Pro | Ser | Ser | Ala | Ser |
| | 610 | | | | | 615 | | | | | 620 | | | | |

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Thr Val Ser Val Gly Ser Ser Glu Thr Arg Gly Glu Arg Val Ile Asp
625                      630                      635                      640
Ala Val Arg Phe Thr Leu Arg Gln Thr Ile Ser Phe Pro Pro Arg Asp
                      645                      650                      655
Glu Trp Asn Asp Phe Asn Phe Asp Met Asp Ala Arg Arg Asn Lys Gln
                      660                      665                      670
Gln Arg Ile Lys Glu Glu Gly Glu
                      675                      680

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<210> 343

<211> 461

<212> PRT

<213> Homo sapiens

<400> 343

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Met Leu Tyr Leu Glu Asn Asn Ala Gln Thr Gln Phe Ser Glu Pro Gln
1                      5                      10                      15
Tyr Thr Asn Leu Gly Leu Leu Asn Ser Met Asp Gln Gln Ile Gln Asn
                      20                      25                      30
Gly Ser Ser Ser Thr Ser Pro Tyr Asn Thr Asp His Ala Gln Asn Ser
                      35                      40                      45
Val Thr Ala Pro Ser Pro Tyr Ala Gln Pro Ser Ser Thr Phe Asp Ala
                      50                      55                      60
Leu Ser Pro Ser Pro Ala Ile Pro Ser Asn Thr Asp Tyr Pro Gly Pro
65                      70                      75                      80
His Ser Phe Asp Val Ser Phe Gln Gln Ser Ser Thr Ala Lys Ser Ala
                      85                      90                      95
Thr Trp Thr Tyr Ser Thr Glu Leu Lys Lys Leu Tyr Cys Gln Ile Ala
                      100                     105                     110
Lys Thr Cys Pro Ile Gln Ile Lys Val Met Thr Pro Pro Gln Gly
                      115                     120                     125
Ala Val Ile Arg Ala Met Pro Val Tyr Lys Lys Ala Glu His Val Thr
                      130                     135                     140
Glu Val Val Lys Arg Cys Pro Asn His Glu Leu Ser Arg Glu Phe Asn
145                      150                     155                     160
Glu Gly Gln Ile Ala Pro Pro Ser His Leu Ile Arg Val Glu Gly Asn
                      165                     170                     175
Ser His Ala Gln Tyr Val Glu Asp Pro Ile Thr Gly Arg Gln Ser Val
                      180                     185                     190
Leu Val Pro Tyr Glu Pro Pro Gln Val Gly Thr Glu Phe Thr Thr Val
                      195                     200                     205
Leu Tyr Asn Phe Met Cys Asn Ser Ser Cys Val Gly Gly Met Asn Arg
210                      215                     220
Arg Pro Ile Leu Ile Ile Val Thr Leu Glu Thr Arg Asp Gly Gln Val
225                      230                     235                     240
Leu Gly Arg Arg Cys Phe Glu Ala Arg Ile Cys Ala Cys Pro Gly Arg
                      245                     250                     255
Asp Arg Lys Ala Asp Glu Asp Ser Ile Arg Lys Gln Gln Val Ser Asp
                      260                     265                     270
Ser Thr Lys Asn Gly Asp Gly Thr Lys Arg Pro Phe Arg Gln Asn Thr
                      275                     280                     285
His Gly Ile Gln Met Thr Ser Ile Lys Lys Arg Arg Ser Pro Asp Asp
290                      295                     300

```

Glu Leu Leu Tyr Leu Pro Val Arg Gly Arg Glu Thr Tyr Glu Met Leu
 305 310 315 320
 Leu Lys Ile Lys Glu Ser Leu Glu Leu Met Gln Tyr Leu Pro Gln His
 325 330 335
 Thr Ile Glu Thr Tyr Arg Gln Gln Gln Gln Gln His Gln His Leu
 340 345 350
 Leu Gln Lys Gln Thr Ser Ile Gln Ser Pro Ser Ser Tyr Gly Asn Ser
 355 360 365
 Ser Pro Pro Leu Asn Lys Met Asn Ser Met Asn Lys Leu Pro Ser Val
 370 375 380
 Ser Gln Leu Ile Asn Pro Gln Gln Arg Asn Ala Leu Thr Pro Thr Thr
 385 390 395 400
 Ile Pro Asp Gly Met Gly Ala Asn Ile Pro Met Met Gly Thr His Met
 405 410 415
 Pro Met Ala Gly Asp Met Asn Gly Leu Ser Pro Thr Gln Ala Leu Pro
 420 425 430
 Pro Pro Leu Ser Met Pro Ser Thr Ser His Cys Thr Pro Pro Pro Pro
 435 440 445
 Tyr Pro Thr Asp Cys Ser Ile Val Arg Ile Trp Gln Val
 450 455 460

<210> 344
 <211> 516
 <212> PRT
 <213> Homo sapiens

<400> 344
 Met Ser Gln Ser Thr Gln Thr Asn Glu Phe Leu Ser Pro Glu Val Phe
 1 5 10 15
 Gln His Ile Trp Asp Phe Leu Glu Gln Pro Ile Cys Ser Val Gln Pro
 20 25 30
 Ile Asp Leu Asn Phe Val Asp Glu Pro Ser Glu Asp Gly Ala Thr Asn
 35 40 45
 Lys Ile Glu Ile Ser Met Asp Cys Ile Arg Met Gln Asp Ser Asp Leu
 50 55 60
 Ser Asp Pro Met Trp Pro Gln Tyr Thr Asn Leu Gly Leu Leu Asn Ser
 65 70 75 80
 Met Asp Gln Gln Ile Gln Asn Gly Ser Ser Ser Thr Ser Pro Tyr Asn
 85 90 95
 Thr Asp His Ala Gln Asn Ser Val Thr Ala Pro Ser Pro Tyr Ala Gln
 100 105 110
 Pro Ser Ser Thr Phe Asp Ala Leu Ser Pro Ser Pro Ala Ile Pro Ser
 115 120 125
 Asn Thr Asp Tyr Pro Gly Pro His Ser Phe Asp Val Ser Phe Gln Gln
 130 135 140
 Ser Ser Thr Ala Lys Ser Ala Thr Trp Thr Tyr Ser Thr Glu Leu Lys
 145 150 155 160
 Lys Leu Tyr Cys Gln Ile Ala Lys Thr Cys Pro Ile Gln Ile Lys Val
 165 170 175
 Met Thr Pro Pro Pro Gln Gly Ala Val Ile Arg Ala Met Pro Val Tyr
 180 185 190
 Lys Lys Ala Glu His Val Thr Glu Val Val Lys Arg Cys Pro Asn His
 195 200 205

Glu Leu Ser Arg Glu Phe Asn Glu Gly Gln Ile Ala Pro Pro Ser His
 210 215 220
 Leu Ile Arg Val Glu Gly Asn Ser His Ala Gln Tyr Val Glu Asp Pro
 225 230 235 240
 Ile Thr Gly Arg Gln Ser Val Leu Val Pro Tyr Glu Pro Pro Gln Val
 245 250 255
 Gly Thr Glu Phe Thr Thr Val Leu Tyr Asn Phe Met Cys Asn Ser Ser
 260 265 270
 Cys Val Gly Gly Met Asn Arg Arg Pro Ile Leu Ile Ile Val Thr Leu
 275 280 285
 Glu Thr Arg Asp Gly Gln Val Leu Gly Arg Arg Cys Phe Glu Ala Arg
 290 295 300
 Ile Cys Ala Cys Pro Gly Arg Asp Arg Lys Ala Asp Glu Asp Ser Ile
 305 310 315 320
 Arg Lys Gln Gln Val Ser Asp Ser Thr Lys Asn Gly Asp Gly Thr Lys
 325 330 335
 Arg Pro Phe Arg Gln Asn Thr His Gly Ile Gln Met Thr Ser Ile Lys
 340 345 350
 Lys Arg Arg Ser Pro Asp Asp Glu Leu Leu Tyr Leu Pro Val Arg Gly
 355 360 365
 Arg Glu Thr Tyr Glu Met Leu Leu Lys Ile Lys Glu Ser Leu Glu Leu
 370 375 380
 Met Gln Tyr Leu Pro Gln His Thr Ile Glu Thr Tyr Arg Gln Gln Gln
 385 390 395 400
 Gln Gln Gln His Gln His Leu Leu Gln Lys Gln Thr Ser Ile Gln Ser
 405 410 415
 Pro Ser Ser Tyr Gly Asn Ser Ser Pro Pro Leu Asn Lys Met Asn Ser
 420 425 430
 Met Asn Lys Leu Pro Ser Val Ser Gln Leu Ile Asn Pro Gln Gln Arg
 435 440 445
 Asn Ala Leu Thr Pro Thr Thr Ile Pro Asp Gly Met Gly Ala Asn Ile
 450 455 460
 Pro Met Met Gly Thr His Met Pro Met Ala Gly Asp Met Asn Gly Leu
 465 470 475 480
 Ser Pro Thr Gln Ala Leu Pro Pro Pro Leu Ser Met Pro Ser Thr Ser
 485 490 495
 His Cys Thr Pro Pro Pro Pro Tyr Pro Thr Asp Cys Ser Ile Val Arg
 500 505 510
 Ile Trp Gln Val
 515

<210> 345

<211> 1800

<212> DNA

<213> Homo sapiens

<400> 345

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 actggttggt ttttaaacaa attctgatac aggcgacatc ctactgacc gagcaaagat 120
 tgacattcgt atcatcactg tgcaccattg gcttctaggc actccagtgg ggtaggagaa 180
 ggaggtctga aaccctcgca gagggatctt gccctcattc tttgggtctg aaacactggc 240
 agtcgttgga aacaggactc agggataaac cagcgcaatg gattggggga cgctgcacac 300
 tttcatcggg ggtgtcaaca aacactccac cagcatcggg aaggtgtgga tcacagtcac 360

```

ctttattttc cgagtcacga tcctagtggg ggctgcccag gaagtgtggg gtgacgagca 420
agaggacttc gtctgcaaca cactgcaacc gggatgcaaa aatgtgtgct atgaccactt 480
tttcccgttg tcccacatcc ggctgtgggc cctccagctg atcttcgtct ccaccccagc 540
gctgctgggt gccatgcatg tggcctacta caggcacgaa accactcgca agttcaggcg 600
aggagagaag aggaatgatt tcaaagacat agaggacatt aaaaagcaca aggttcggat 660
agaggggtcg ctgtgttgga cgtacaccag cagcatcttt ttccgaatca tctttgaagc 720
agcctttatg tatgtgtttt acttccttta caatgggtac cacctgccct ggggtgtgaa 780
atgtgggatt gacccctgcc ccaaccttgt tgactgcttt atttctaggc caacagagaa 840
gaccgtgttt accattttta tgatttctgc gtctgtgatt tgcattgctg ttaacgtggc 900
agagttgtgc tacctgctgc tgaaagtgtg ttttaggaga tcaaagagag cacagacgca 960
aaaaaatcac cccaatcatg ccctaaagga gagtaagcag aatgaaatga atgagctgat 1020
ttcagatagt ggtcaaaatg caatcacagg tttcccaagc taaacatttc aaggtaaaaat 1080
gtagctgctg cataaggaga cttctgtctt ctccagaagg caataccaac ctgaaagttc 1140
cttctgtagc ctgaagagtt tgtaaattgac tttcataata aatagacact tgagttaact 1200
ttttgtagga tacttgctcc attcatacac aacgtaatca aatatgtggg ccatctctga 1260
aaacaagaga ctgcttgaca aaggagcatt gcagtcactt tgacagggtt cttttaagtg 1320
gactctctga caaagtgggt actttctgaa aatttatata actgttggtg ataaggaaca 1380
tttatccagg aattgatacg tttattagga aaagatattt ttataggctt ggatgttttt 1440
agttccgact ttgaatttat ataaagtatt tttataatga ctggtcttcc ttacctggaa 1500
aaacatgcga tgtagtattt agaattacac cacaagtatc taaatttcca acttacaaag 1560
ggctctatct tgtaaattat gttttgcatt gtctgttggc aaatttgtga actgtcatga 1620
tacgcttaag gtgggaaagt gttcattgca caatatattt ttactgcttt ctgaatgtag 1680
acggaacagt gtggaagcag aaggcttttt taactcatcc gtttggccga tcgttgacga 1740
ccactgggag atgtggatgt gggtgcctcc ttttgctcgt ccccggtggc taacccttct 1800

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<210> 346

<211> 261

<212> PRT

<213> Homo sapiens

<400> 346

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Met Asp Trp Gly Thr Leu His Thr Phe Ile Gly Gly Val Asn Lys His
 1           5           10           15
Ser Thr Ser Ile Gly Lys Val Trp Ile Thr Val Ile Phe Ile Phe Arg
          20          25          30
Val Met Ile Leu Val Val Ala Ala Gln Glu Val Trp Gly Asp Glu Gln
          35          40          45
Glu Asp Phe Val Cys Asn Thr Leu Gln Pro Gly Cys Lys Asn Val Cys
          50          55          60
Tyr Asp His Phe Phe Pro Val Ser His Ile Arg Leu Trp Ala Leu Gln
          65          70          75          80
Leu Ile Phe Val Ser Thr Pro Ala Leu Leu Val Ala Met His Val Ala
          85          90          95
Tyr Tyr Arg His Glu Thr Thr Arg Lys Phe Arg Arg Gly Glu Lys Arg
          100         105         110
Asn Asp Phe Lys Asp Ile Glu Asp Ile Lys Lys His Lys Val Arg Ile
          115         120         125
Glu Gly Ser Leu Trp Trp Thr Tyr Thr Ser Ser Ile Phe Phe Arg Ile
          130         135         140
Ile Phe Glu Ala Ala Phe Met Tyr Val Phe Tyr Phe Leu Tyr Asn Gly
          145         150         155         160
Tyr His Leu Pro Trp Val Leu Lys Cys Gly Ile Asp Pro Cys Pro Asn
          165         170         175

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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Asp | Cys | Phe | Ile | Ser | Arg | Pro | Thr | Glu | Lys | Thr | Val | Phe | Thr |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | Phe | Met | Ile | Ser | Ala | Ser | Val | Ile | Cys | Met | Leu | Leu | Asn | Val | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Leu | Cys | Tyr | Leu | Leu | Leu | Lys | Val | Cys | Phe | Arg | Arg | Ser | Lys | Arg |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Gln | Thr | Gln | Lys | Asn | His | Pro | Asn | His | Ala | Leu | Lys | Glu | Ser | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gln | Asn | Glu | Met | Asn | Glu | Leu | Ile | Ser | Asp | Ser | Gly | Gln | Asn | Ala | Ile |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Thr | Gly | Phe | Pro | Ser | | | | | | | | | | | |
| | | | 260 | | | | | | | | | | | | |

<210> 347

<211> 1740

<212> DNA

<213> Homo sapiens

<400> 347

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ttcgtggact gcccgacga gagctgggcc ctcaaggcca tcgaggcgct ttcaggtaaa 180
atagaactgc acgggaaacc catagaagtt gagcactcgg tcccaaaaag gcaaaggatt 240
cggaaacttc agatacgaaa tatccgcct catttacagt gggaggtgct ggatagttaa 300
ctagtccagt atggagtggg ggagagctgt gagcaagtga acactgactc ggaaactgca 360
gttgtaaatt taacctattc cagtaaggac caagctagac aagcactaga caaactgaat 420
ggatttcagt tagagaattt caccttgaaa gtacgctata tccctgatga aacggccgcc 480
cagcaaaacc cttgcagca gccccgaggt cgccgggggc ttgggcagag gggctcctca 540
aggcaggggt ctccaggatc cgtatccaag cagaaaccat gtgatttgcc tctgcgcctg 600
ctggtttccca cccaatttgt tggagccatc ataggaaaag aagtgccac cattcggaac 660
atcaccaaac agaccagtc taaaatcgat gtccaccgta aagaaaatgc gggggctgct 720
gagaagtcca ttactatcct ctctactcct gaaggcacct ctgcggcttg taagtctatt 780
ctggagatta tgcataagga agctcaagat ataaaattca cagaagagat ccccttgaag 840
attttagctc ataataactt tgttggacgt cttattggta aagaaggaag aaatcttaa 900
aaaattgagc aagacacaga cactaaaatc acgatatctc cattgcagga attgacgctg 960
tataatccag aacgcactat tacagttaaa ggcaatgttg agacatgtgc caaagctgag 1020
gaggagatca tgaagaaaat cagggagtct tatgaaaatg atattgcttc tatgaatctt 1080
caagcacatt taattcctgg attaaatctg aacgccttgg gtctgttccc acccacttca 1140
gggatgccac ctcccacctc agggccccct tcagccatga ctctcccta cccgcagttt 1200
gagcaatcag aaacggagac tgttcattctg tttatcccag ctctatcagt cggtgccatc 1260
atcggaagc agggccagca catcaagcag ctttctcgct ttgctggagc ttcaattaag 1320
attgctccag cggaagcacc agatgctaaa gtgaggatgg tgattatcac tggaccacca 1380
gaggctcagt tcaaggctca gggaagaatt tatggaaaaa ttaaagaaga aaactttgtt 1440
agtccataag aagaggtgaa acttgaagct catatcagag tgccatcctt tgctgctggc 1500
agagttattg gaaaaggagg caaacgggtg aatgaacttc agaatttgtc aagtgcagaa 1560
gttggtgtcc ctctgaccca gacacctgat gagaatgacc aagtgttgtt caaaataact 1620
ggtcacttct atgcttgcca gggtgcccag agaaaaattc aggaaattct gactcaggta 1680
aagcagcacc aacaacagaa ggctctgcaa agtgaccac ctcagtcaag acggaagtaa 1740

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<210> 348

<211> 579

<212> PRT

<213> Homo sapiens

<400> 348

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asn | Lys | Leu | Tyr | Ile | Gly | Asn | Leu | Ser | Glu | Asn | Ala | Ala | Pro | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Leu | Glu | Ser | Ile | Phe | Lys | Asp | Ala | Lys | Ile | Pro | Val | Ser | Gly | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Leu | Val | Lys | Thr | Gly | Tyr | Ala | Phe | Val | Asp | Cys | Pro | Asp | Glu | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Trp | Ala | Leu | Lys | Ala | Ile | Glu | Ala | Leu | Ser | Gly | Lys | Ile | Glu | Leu | His |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Gly | Lys | Pro | Ile | Glu | Val | Glu | His | Ser | Val | Pro | Lys | Arg | Gln | Arg | Ile |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Arg | Lys | Leu | Gln | Ile | Arg | Asn | Ile | Pro | Pro | His | Leu | Gln | Trp | Glu | Val |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Leu | Asp | Ser | Leu | Leu | Val | Gln | Tyr | Gly | Val | Val | Glu | Ser | Cys | Glu | Gln |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Val | Asn | Thr | Asp | Ser | Glu | Thr | Ala | Val | Val | Asn | Val | Thr | Tyr | Ser | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Lys | Asp | Gln | Ala | Arg | Gln | Ala | Leu | Asp | Lys | Leu | Asn | Gly | Phe | Gln | Leu |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Glu | Asn | Phe | Thr | Leu | Lys | Val | Ala | Tyr | Ile | Pro | Asp | Glu | Thr | Ala | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gln | Gln | Asn | Pro | Leu | Gln | Gln | Pro | Arg | Gly | Arg | Arg | Gly | Leu | Gly | Gln |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Arg | Gly | Ser | Ser | Arg | Gln | Gly | Ser | Pro | Gly | Ser | Val | Ser | Lys | Gln | Lys |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Pro | Cys | Asp | Leu | Pro | Leu | Arg | Leu | Leu | Val | Pro | Thr | Gln | Phe | Val | Gly |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Ile | Ile | Gly | Lys | Glu | Gly | Ala | Thr | Ile | Arg | Asn | Ile | Thr | Lys | Gln |
| | 210 | | | | | 215 | | | | | | 220 | | | |
| Thr | Gln | Ser | Lys | Ile | Asp | Val | His | Arg | Lys | Glu | Asn | Ala | Gly | Ala | Ala |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Glu | Lys | Ser | Ile | Thr | Ile | Leu | Ser | Thr | Pro | Glu | Gly | Thr | Ser | Ala | Ala |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Cys | Lys | Ser | Ile | Leu | Glu | Ile | Met | His | Lys | Glu | Ala | Gln | Asp | Ile | Lys |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Phe | Thr | Glu | Glu | Ile | Pro | Leu | Lys | Ile | Leu | Ala | His | Asn | Asn | Phe | Val |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gly | Arg | Leu | Ile | Gly | Lys | Glu | Gly | Arg | Asn | Leu | Lys | Lys | Ile | Glu | Gln |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asp | Thr | Asp | Thr | Lys | Ile | Thr | Ile | Ser | Pro | Leu | Gln | Glu | Leu | Thr | Leu |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |
| Tyr | Asn | Pro | Glu | Arg | Thr | Ile | Thr | Val | Lys | Gly | Asn | Val | Glu | Thr | Cys |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Ala | Lys | Ala | Glu | Glu | Ile | Met | Lys | Lys | Ile | Arg | Glu | Ser | Tyr | Glu | |
| | | 340 | | | | | 345 | | | | | 350 | | | |
| Asn | Asp | Ile | Ala | Ser | Met | Asn | Leu | Gln | Ala | His | Leu | Ile | Pro | Gly | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Asn | Leu | Asn | Ala | Leu | Gly | Leu | Phe | Pro | Pro | Thr | Ser | Gly | Met | Pro | Pro |
| | 370 | | | | 375 | | | | | | 380 | | | | |
| Pro | Thr | Ser | Gly | Pro | Pro | Ser | Ala | Met | Thr | Pro | Pro | Tyr | Pro | Gln | Phe |
| 385 | | | | 390 | | | | | | 395 | | | | | 400 |
| Glu | Gln | Ser | Glu | Thr | Glu | Thr | Val | His | Leu | Phe | Ile | Pro | Ala | Leu | Ser |

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                405                410                415
Val Gly Ala Ile Ile Gly Lys Gln Gly Gln His Ile Lys Gln Leu Ser
                420                425                430
Arg Phe Ala Gly Ala Ser Ile Lys Ile Ala Pro Ala Glu Ala Pro Asp
                435                440                445
Ala Lys Val Arg Met Val Ile Ile Thr Gly Pro Pro Glu Ala Gln Phe
                450                455                460
Lys Ala Gln Gly Arg Ile Tyr Gly Lys Ile Lys Glu Glu Asn Phe Val
465                470                475                480
Ser Pro Lys Glu Glu Val Lys Leu Glu Ala His Ile Arg Val Pro Ser
                485                490                495
Phe Ala Ala Gly Arg Val Ile Gly Lys Gly Gly Lys Thr Val Asn Glu
                500                505                510
Leu Gln Asn Leu Ser Ser Ala Glu Val Val Val Pro Arg Asp Gln Thr
                515                520                525
Pro Asp Glu Asn Asp Gln Val Val Lys Ile Thr Gly His Phe Tyr
                530                535                540
Ala Cys Gln Val Ala Gln Arg Lys Ile Gln Glu Ile Leu Thr Gln Val
545                550                555                560
Lys Gln His Gln Gln Gln Lys Ala Leu Gln Ser Gly Pro Pro Gln Ser
                565                570                575
Arg Arg Lys

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<210> 349
<211> 207
<212> DNA
<213> Homo sapiens

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<400> 349
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gaaaagatga gagaagttac agactctcct gggcgacccc gagagcttac cattcctcag 180
acttcttcac atggtgctaa cagatttt                                207

```

```

<210> 350
<211> 69
<212> PRT
<213> Homo sapiens

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<400> 350
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Ser Ser Gln Ile Ala Ala Ala Ala Ser Thr Gln Pro Glu Asp Asp Ile
                20                25                30
Asn Thr Gln Arg Lys Lys Ser Gln Glu Lys Met Arg Glu Val Thr Asp
                35                40                45
Ser Pro Gly Arg Pro Arg Glu Leu Thr Ile Pro Gln Thr Ser Ser His
                50                55                60
Gly Ala Asn Arg Phe
65

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<210> 351
 <211> 1012
 <212> DNA
 <213> Homo sapiens

<400> 351
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 ccgatcgggc aggcgatggc gatcgcgggc cagatcaagc tcccaccgt tcatatcggg 180
 cctaccgcct tcctcggtt ggtgtgtgtc gacaacaacg gcaacggcgc acgagtccaa 240
 cgctgtgtcg ggagcgctcc ggcggaagt ctcggcatct ccaccggcga cgtgatcacc 300
 gcggtcgacg gcgtccgat caactcggcc accgcgatgg cggacgcgt taacgggcat 360
 catcccgggtg acgtcatctc ggtgacctgg caaaccaagt cgggcggcac gcgtacaggg 420
 aacgtgacat tggccgaggg acccccggcc gaattcatgg attgggggac gctgcacact 480
 ttcatcgggg gtgtcaacaa acactccacc agcatcggga aggtgtggat cacagtcac 540
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 gaggacttcg tctgcaacac actgcaaccg ggatgcaaaa atgtgtgcta tgaccacttt 660
 ttcccgggtgt cccacatccg gctgtgggcc ctccagctga tcttcgtctc caccacagcg 720
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 ggagagaaga ggaatgattt caaagacata gaggacatta aaaagcagaa ggttcggata 840
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 aaggaagctg agttggctgc tgccaccgct gagcaataac tagcataacc ctttggggcc 960
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<210> 352
 <211> 267
 <212> PRT
 <213> Homo sapiens

<400> 352
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 20 25 30
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 35 40 45
 Phe Leu Gly Leu Gly Val Val Asp Asn Asn Gly Asn Gly Ala Arg Val
 50 55 60
 Gln Arg Val Val Gly Ser Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr
 65 70 75 80
 Gly Asp Val Ile Thr Ala Val Asp Gly Ala Pro Ile Asn Ser Ala Thr
 85 90 95
 Ala Met Ala Asp Ala Leu Asn Gly His His Pro Gly Asp Val Ile Ser
 100 105 110
 Val Thr Trp Gln Thr Lys Ser Gly Gly Thr Arg Thr Gly Asn Val Thr
 115 120 125
 Leu Ala Glu Gly Pro Pro Ala Glu Phe Met Asp Trp Gly Thr Leu His
 130 135 140
 Thr Phe Ile Gly Gly Val Asn Lys His Ser Thr Ser Ile Gly Lys Val
 145 150 155 160
 Trp Ile Thr Val Ile Phe Ile Phe Arg Val Met Ile Leu Val Val Ala
 165 170 175
 Ala Gln Glu Val Trp Gly Asp Glu Gln Glu Asp Phe Val Cys Asn Thr
 180 185 190

Leu Gln Pro Gly Cys Lys Asn Val Cys Tyr Asp His Phe Phe Pro Val
 195 200 205
 Ser His Ile Arg Leu Trp Ala Leu Gln Leu Ile Phe Val Ser Thr Pro
 210 215 220
 Ala Leu Leu Val Ala Met His Val Ala Tyr Tyr Arg His Glu Thr Thr
 225 230 235 240
 Arg Lys Phe Arg Arg Gly Glu Lys Arg Asn Asp Phe Lys Asp Ile Glu
 245 250 255
 Asp Ile Lys Lys Gln Lys Val Arg Ile Glu Gly
 260 265

<210> 353

<211> 900

<212> DNA

<213> Homo sapiens

<400> 353

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 accgttcata tcgggcctac cgccttcctc ggcttgggtg ttgtcgacaa caacggcaac 180
 ggcgcacgag tccaacgcgt ggtcgggagc gctccggcgg caagtctcgg catctccacc 240
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 ggcgttaacg ggcattcatcc cggtgacgtc atctcgggtga cctggcaaac caagtcgggc 360
 ggcacgcgta cagggaacgt gacattggcc gagggacccc cggccgaatt ccacgaaacc 420
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 aagcagaagg ttcggataga ggggtcgctg tgggtgacgt acaccagcag catctttttc 540
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 ctgccctggg tgttgaaatg tgggattgac ccctgccccca accttggtga ctgctttatt 660
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 aagagagcac agacgcaaaa aaatcacccc aatcatgccc taaaggagag taagcagaat 840
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<210> 354

<211> 299

<212> PRT

<213> Homo sapiens

<400> 354

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 35 40 45
 Phe Leu Gly Leu Gly Val Val Asp Asn Asn Gly Asn Gly Ala Arg Val
 50 55 60
 Gln Arg Val Val Gly Ser Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr
 65 70 75 80
 Gly Asp Val Ile Thr Ala Val Asp Gly Ala Pro Ile Asn Ser Ala Thr
 85 90 95
 Ala Met Ala Asp Ala Leu Asn Gly His His Pro Gly Asp Val Ile Ser

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Val | Thr | Trp | Gln | Thr | Lys | Ser | Gly | Gly | Thr | Arg | Thr | Gly | Asn | Val | Thr | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Leu | Ala | Glu | Gly | Pro | Pro | Ala | Glu | Phe | His | Glu | Thr | Thr | Arg | Lys | Phe | | |
| | 130 | | | | | 135 | | | | | | 140 | | | | | |
| Arg | Arg | Gly | Glu | Lys | Arg | Asn | Asp | Phe | Lys | Asp | Ile | Glu | Asp | Ile | Lys | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Lys | Gln | Lys | Val | Arg | Ile | Glu | Gly | Ser | Leu | Trp | Trp | Thr | Tyr | Thr | Ser | | |
| | | | 165 | | | | | 170 | | | | | | 175 | | | |
| Ser | Ile | Phe | Phe | Arg | Ile | Ile | Phe | Glu | Ala | Ala | Phe | Met | Tyr | Val | Phe | | |
| | | 180 | | | | | 185 | | | | | | 190 | | | | |
| Tyr | Phe | Leu | Tyr | Asn | Gly | Tyr | His | Leu | Pro | Trp | Val | Leu | Lys | Cys | Gly | | |
| | 195 | | | | | 200 | | | | | 205 | | | | | | |
| Ile | Asp | Pro | Cys | Pro | Asn | Leu | Val | Asp | Cys | Phe | Ile | Ser | Arg | Pro | Thr | | |
| | 210 | | | | 215 | | | | | | 220 | | | | | | |
| Glu | Lys | Thr | Val | Phe | Thr | Ile | Phe | Met | Ile | Ser | Ala | Ser | Val | Ile | Cys | | |
| 225 | | | | 230 | | | | | 235 | | | | | | 240 | | |
| Met | Leu | Leu | Asn | Val | Ala | Glu | Leu | Cys | Tyr | Leu | Leu | Leu | Lys | Val | Cys | | |
| | | | 245 | | | | | 250 | | | | | | 255 | | | |
| Phe | Arg | Arg | Ser | Lys | Arg | Ala | Gln | Thr | Gln | Lys | Asn | His | Pro | Asn | His | | |
| | | 260 | | | | | 265 | | | | | 270 | | | | | |
| Ala | Leu | Lys | Glu | Ser | Lys | Gln | Asn | Glu | Met | Asn | Glu | Leu | Ile | Ser | Asp | | |
| | 275 | | | | | 280 | | | | | 285 | | | | | | |
| Ser | Gly | Gln | Asn | Ala | Ile | Thr | Gly | Phe | Pro | Ser | | | | | | | |
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<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 355

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24

<210> 356

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 356

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31

<210> 357

<211> 920

<212> PRT

<213> Homo sapiens

<400> 357

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gln | His | His | His | His | His | His | Gly | Val | Gln | Leu | Gln | Asp | Asn | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Tyr | Asn | Gly | Leu | Leu | Ile | Ala | Ile | Asn | Pro | Gln | Val | Pro | Glu | Asn | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asn | Leu | Ile | Ser | Asn | Ile | Lys | Glu | Met | Ile | Thr | Glu | Ala | Ser | Phe | Tyr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Phe | Asn | Ala | Thr | Lys | Arg | Arg | Val | Phe | Phe | Arg | Asn | Ile | Lys | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Ile | Pro | Ala | Thr | Trp | Lys | Ala | Asn | Asn | Asn | Ser | Lys | Ile | Lys | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Ser | Tyr | Glu | Lys | Ala | Asn | Val | Ile | Val | Thr | Asp | Trp | Tyr | Gly | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| His | Gly | Asp | Asp | Pro | Tyr | Thr | Leu | Gln | Tyr | Arg | Gly | Cys | Gly | Lys | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Lys | Tyr | Ile | His | Phe | Thr | Pro | Asn | Phe | Leu | Leu | Asn | Asp | Asn | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Ala | Gly | Tyr | Gly | Ser | Arg | Gly | Arg | Val | Phe | Val | His | Glu | Trp | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| His | Leu | Arg | Trp | Gly | Val | Phe | Asp | Glu | Tyr | Asn | Asn | Asp | Lys | Pro | Phe |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Tyr | Ile | Asn | Gly | Gln | Asn | Gln | Ile | Lys | Val | Thr | Arg | Cys | Ser | Ser | Asp |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Ile | Thr | Gly | Ile | Phe | Val | Cys | Glu | Lys | Gly | Pro | Cys | Pro | Gln | Glu | Asn |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Cys | Ile | Ile | Ser | Lys | Leu | Phe | Lys | Glu | Gly | Cys | Thr | Phe | Ile | Tyr | Asn |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Ser | Thr | Gln | Asn | Ala | Thr | Ala | Ser | Ile | Met | Phe | Met | Gln | Ser | Leu | Ser |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ser | Val | Val | Glu | Phe | Cys | Asn | Ala | Ser | Thr | His | Asn | Gln | Glu | Ala | Pro |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Asn | Leu | Gln | Asn | Gln | Met | Cys | Ser | Leu | Arg | Ser | Ala | Trp | Asp | Val | Ile |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Thr | Asp | Ser | Ala | Asp | Phe | His | His | Ser | Phe | Pro | Met | Asn | Gly | Thr | Glu |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Leu | Pro | Pro | Pro | Pro | Thr | Phe | Ser | Leu | Val | Glu | Ala | Gly | Asp | Lys | Val |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Val | Cys | Leu | Val | Leu | Asp | Val | Ser | Ser | Lys | Met | Ala | Glu | Ala | Asp | Arg |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Leu | Gln | Leu | Gln | Gln | Ala | Ala | Glu | Phe | Tyr | Leu | Met | Gln | Ile | Val |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Glu | Ile | His | Thr | Phe | Val | Gly | Ile | Ala | Ser | Phe | Asp | Ser | Lys | Gly | Glu |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ile | Arg | Ala | Gln | Leu | His | Gln | Ile | Asn | Ser | Asn | Asp | Asp | Arg | Lys | Leu |
| | | 340 | | | | | | 345 | | | | | 350 | | |
| Leu | Val | Ser | Tyr | Leu | Pro | Thr | Thr | Val | Ser | Ala | Lys | Thr | Asp | Ile | Ser |
| | 355 | | | | | | 360 | | | | | 365 | | | |
| Ile | Cys | Ser | Gly | Leu | Lys | Lys | Gly | Phe | Glu | Val | Val | Glu | Lys | Leu | Asn |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Gly | Lys | Ala | Tyr | Gly | Ser | Val | Met | Ile | Leu | Val | Thr | Ser | Gly | Asp | Asp |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Lys | Leu | Leu | Gly | Asn | Cys | Leu | Pro | Thr | Val | Leu | Ser | Ser | Gly | Ser | Thr |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Ile | His | Ser | Ile | Ala | Leu | Gly | Ser | Ser | Ala | Ala | Pro | Asn | Leu | Glu | Glu |

[illegible]

| | | | | |
|---|---------------------|---------------------|-----|-----|
| 850 | | 855 | | 860 |
| Ile Pro Pro Asn Ser Asp | Pro Val Pro Ala Arg | Asp Tyr Leu Ile Leu | | |
| 865 | | 870 | | 875 |
| Lys Gly Val Leu Thr Ala Met Gly Leu Ile Gly | Ile Ile Cys Leu Ile | | | 880 |
| | 885 | | 890 | 895 |
| Ile Val Val Thr His His Thr Leu Ser Arg Lys | Lys Arg Ala Asp Lys | | | |
| | 900 | | 905 | 910 |
| Lys Glu Asn Gly Thr Lys Leu Leu | | | | |
| | 915 | | 920 | |

<210> 358
 <211> 2773
 <212> DNA
 <213> Homo sapiens

<400> 358

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gaaatgataa ctgaagcttc attttaccta tttaatgcta ccaagagaag agtatttttc 180
agaaatataa agattttaat acctgccaca tggaaagcta ataataacag caaaataaaa 240
caagaatcat atgaaaaggc aaatgtcata gtgactgact ggtatggggc acatggagat 300
gatccataca ccctacaata cagaggggtgt ggaaaagagg gaaaatacat tcatttcaca 360
cctaatttcc tactgaatga taacttaaca gctggctacg gatcacgagg ccgagtgttt 420
gtccatgaat gggcccacct ccgttggggg gtgttcgatg agtataacaa tgacaaacct 480
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atttttgtgt gtgaaaaagg tccttgcccc caagaaaact gtattattag taagcttttt 600
aaagaaggat gcacctttat ctacaatagc acccaaatg caactgcatc aataatgttc 660
atgcaaagtt tatcttctgt ggttgaatth tgtaatgcaa gtaccacaa ccaagaagca 720
ccaaacctac agaaccagat gtgcagcctc agaagtgcac gggatgtaat cacagactct 780
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cgagtcagct caggaggctc cttttcagtg ctgggagttc cagctggccc ccaccctgat 2220

```

```

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<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 359

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<210> 360

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 360

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<210> 361

<211> 77

<212> PRT

<213> Homo sapiens

<400> 361

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20          25          30
Thr Gln Pro Glu Asp Asp Ile Asn Thr Gln Arg Lys Lys Ser Gln Glu
35          40          45
Lys Met Arg Glu Val Thr Asp Ser Pro Gly Arg Pro Arg Glu Leu Thr
50          55          60
Ile Pro Gln Thr Ser Ser His Gly Ala Asn Arg Phe Val
65          70          75

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<210> 362

<211> 244

<212> DNA

<213> Homo sapiens

<400> 362

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tggtgccctg ggagttctca aattgctgca gcagcctcca cccagcctga ggatgacatc 120
aatacacaga ggaagaagag tcaggaaaag atgagagaag ttacagactc tcctgggcga 180
ccccgagagc ttaccattcc tcagacttct tcacatggtg ctaacagatt tgtttgatga 240
attc                                     244
```

<210> 363

<211> 20

<212> PRT

<213> Homo sapiens

<400> 363

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Met Trp Gln Pro Leu Phe Phe Lys Trp Leu Leu Ser Cys Cys Pro Gly
 1             5             10             15
Ser Ser Gln Ile
                20
```

<210> 364

<211> 60

<212> DNA

<213> Homo sapiens

<400> 364

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<210> 365

<211> 20

<212> PRT

<213> Homo sapiens

<400> 365

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Gly Ser Ser Gln Ile Ala Ala Ala Ala Ser Thr Gln Pro Glu Asp Asp
 1             5             10             15
Ile Asn Thr Gln
                20
```

<210> 366

<211> 60

<212> DNA

<213> Homo sapiens

<400> 366

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<210> 367

<211> 20

<212> PRT

<213> Homo sapiens

<400> 367

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 1 5 10 15
 Gln Ala Leu Lys
 20

<210> 368

<211> 2343

<212> DNA

<213> Homo sapiens

<400> 368

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aaggaatttg ccaagaaggt acaagagctg cagaaaagca atcaggttgc cttccaacat 480
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aacttaccac ttgggccaag tatcgatact catggggaga cttttctatc ccaagaagtg 1440
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ccttctgact taccaaggaa tgccttcaga atttttacca ttcttgtgga atttttatgt 1560
attgagcata ttgattatgc tttggaaaca ggacttgctg gaattccctc ttcagattct 1620
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tttgacaaac agtttaatga tcaccttatg ccactaataa gctcttctcc taagtatatc 1740
gaatgccttc agaagaaaaa agaaataatt gaacaaatgg agatgaaatt ggatactggc 1800
attgatagga cattaattg tatgattgga cagatgaagc atattttggc tgcagaacag 1860
aagaaaacag attttaagcc agaagatgaa aacaatgttt tgattcaata tactaatgcc 1920
tgtgtaaaaag tctgtgctta cgtaagaaaa caagtggaga agattaaaaa ttccatggat 1980
gggaagaatg tggatacagt tttgatggaa cttggagtag gttttcatcg acttatctat 2040
gagcatcttc aacaatatct ctacagttgt atgggtggca tgttggccat ttgtgatgta 2100
gccgaatata ggaagtgtgc caaagacttc aagattccaa tggattaca tctttttgat 2160
actctgcatg ctctttgcaa tcttctggta gttgcccag ataattttaa gcaagctctg 2220
tcaggagaac aacttgctaa tctggacaag aatatacttc actccttcgt acaacttcgt 2280
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att

2343

<210> 369

<211> 708

<212> PRT

<213> Homo sapiens

<400> 369

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Met Ala Thr Thr Ala Glu Leu Phe Glu Glu Pro Phe Val Ala Asp Glu
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Tyr Ile Glu Arg Leu Val Trp Arg Thr Pro Gly Gly Gly Ser Arg Gly
          20          25          30
Gly Pro Glu Ala Phe Asp Pro Lys Arg Leu Leu Glu Glu Phe Val Asn
          35          40          45
His Ile Gln Glu Leu Gln Ile Met Asp Glu Arg Ile Gln Arg Lys Val
          50          55          60
Glu Lys Leu Glu Gln Gln Cys Gln Lys Glu Ala Lys Glu Phe Ala Lys
65          70          75          80
Lys Val Gln Glu Leu Gln Lys Ser Asn Gln Val Ala Phe Gln His Phe
          85          90          95
Gln Glu Leu Asp Glu His Ile Ser Tyr Val Ala Thr Lys Val Cys His
          100          105          110
Leu Gly Asp Gln Leu Glu Gly Val Asn Thr Pro Arg Gln Arg Ala Val
          115          120          125
Glu Ala Gln Lys Leu Met Lys Tyr Phe Asn Glu Phe Leu Asp Gly Glu
          130          135          140
Leu Lys Ser Asp Val Phe Thr Asn Ser Glu Lys Ile Lys Glu Ala Ala
          145          150          155          160
Asp Ile Ile Gln Lys Leu His Leu Ile Ala Gln Glu Leu Pro Phe Asp
          165          170          175
Arg Phe Ser Glu Val Lys Ser Lys Ile Ala Ser Lys Tyr His Asp Leu
          180          185          190
Glu Cys Gln Leu Ile Gln Glu Phe Thr Ser Ala Gln Arg Arg Gly Glu
          195          200          205
Ile Ser Arg Met Arg Glu Val Ala Ala Val Leu Leu His Phe Lys Gly
          210          215          220
Tyr Ser His Cys Val Asp Val Tyr Ile Lys Gln Cys Gln Glu Gly Ala
          225          230          235          240
Tyr Leu Arg Asn Asp Ile Phe Glu Asp Ala Gly Ile Leu Cys Gln Arg
          245          250          255
Val Asn Lys Gln Val Gly Asp Ile Phe Ser Asn Pro Glu Thr Val Leu
          260          265          270
Ala Lys Leu Ile Gln Asn Val Phe Glu Ile Lys Leu Gln Ser Phe Val
          275          280          285
Lys Glu Gln Leu Glu Glu Cys Arg Lys Ser Asp Ala Glu Gln Tyr Leu
          290          295          300
Lys Asn Leu Tyr Asp Leu Tyr Thr Arg Thr Thr Asn Leu Ser Ser Lys
          305          310          315          320
Leu Met Glu Phe Asn Leu Gly Thr Asp Lys Gln Thr Phe Leu Ser Lys
          325          330          335
Leu Ile Lys Ser Ile Phe Ile Ser Tyr Leu Glu Asn Tyr Ile Glu Val
          340          345          350
Glu Thr Gly Tyr Leu Lys Ser Arg Ser Ala Met Ile Leu Gln Arg Tyr
          355          360          365

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Tyr Asp Ser Lys Asn His Gln Lys Arg Ser Ile Gly Thr Gly Gly Ile
  370                               375                               380
Gln Asp Leu Lys Glu Arg Ile Arg Gln Arg Thr Asn Leu Pro Leu Gly
385                               390                               395                               400
Pro Ser Ile Asp Thr His Gly Glu Thr Phe Leu Ser Gln Glu Val Val
                               405                               410                               415
Val Asn Leu Leu Gln Glu Thr Lys Gln Ala Phe Glu Arg Cys His Arg
                               420                               425                               430
Leu Ser Asp Pro Ser Asp Leu Pro Arg Asn Ala Phe Arg Ile Phe Thr
  435                               440                               445
Ile Leu Val Glu Phe Leu Cys Ile Glu His Ile Asp Tyr Ala Leu Glu
  450                               455                               460
Thr Gly Leu Ala Gly Ile Pro Ser Ser Asp Ser Arg Asn Ala Asn Leu
465                               470                               475                               480
Tyr Phe Leu Asp Val Val Gln Gln Ala Asn Thr Ile Phe His Leu Phe
                               485                               490                               495
Asp Lys Gln Phe Asn Asp His Leu Met Pro Leu Ile Ser Ser Ser Pro
                               500                               505                               510
Lys Leu Ser Glu Cys Leu Gln Lys Lys Lys Glu Ile Ile Glu Gln Met
  515                               520                               525
Glu Met Lys Leu Asp Thr Gly Ile Asp Arg Thr Leu Asn Cys Met Ile
  530                               535                               540
Gly Gln Met Lys His Ile Leu Ala Ala Glu Gln Lys Lys Thr Asp Phe
545                               550                               555                               560
Lys Pro Glu Asp Glu Asn Asn Val Leu Ile Gln Tyr Thr Asn Ala Cys
                               565                               570                               575
Val Lys Val Cys Ala Tyr Val Arg Lys Gln Val Glu Lys Ile Lys Asn
  580                               585                               590
Ser Met Asp Gly Lys Asn Val Asp Thr Val Leu Met Glu Leu Gly Val
  595                               600                               605
Arg Phe His Arg Leu Ile Tyr Glu His Leu Gln Gln Tyr Ser Tyr Ser
  610                               615                               620
Cys Met Gly Gly Met Leu Ala Ile Cys Asp Val Ala Glu Tyr Arg Lys
625                               630                               635                               640
Cys Ala Lys Asp Phe Lys Ile Pro Met Val Leu His Leu Phe Asp Thr
                               645                               650                               655
Leu His Ala Leu Cys Asn Leu Leu Val Val Ala Pro Asp Asn Leu Lys
  660                               665                               670
Gln Val Cys Ser Gly Glu Gln Leu Ala Asn Leu Asp Lys Asn Ile Leu
  675                               680                               685
His Ser Phe Val Gln Leu Arg Ala Asp Tyr Arg Ser Ala Arg Leu Ala
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Arg His Phe Ser
705

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<210> 370

<211> 60

<212> DNA

<213> Homo sapiens

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<210> 371
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 <212> DNA
 <213> Homo sapiens

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<210> 372
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 <212> DNA
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<400> 372
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<210> 373
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 <212> DNA
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<210> 374
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 <212> DNA
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<210> 375
 <211> 60
 <212> DNA
 <213> Homo sapiens

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<210> 376
 <211> 20
 <212> PRT
 <213> Homo sapiens

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 Leu Gln Ser Ala Val Ser Asn Ile Ala Gln Ala Pro Leu Phe Ile Pro
 1 5 10 15

Pro Asn Ser Asp
20

<210> 377
<211> 20
<212> PRT
<213> Homo sapiens

<400> 377
Val Asn His Ser Pro Ser Ile Ser Thr Pro Ala His Ser Ile Pro Gly
1 5 10 15
Ser His Ala Met
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<210> 378
<211> 20
<212> PRT
<213> Homo sapiens

<400> 378
Pro Glu Thr Gly Asp Pro Val Thr Leu Arg Leu Leu Asp Asp Gly Ala
1 5 10 15
Gly Ala Asp Val
20

<210> 379
<211> 20
<212> PRT
<213> Homo sapiens

<400> 379
Ala Val Pro Pro Ala Thr Val Glu Ala Phe Val Glu Arg Asp Ser Leu
1 5 10 15
His Phe Pro His
20

<210> 380
<211> 20
<212> PRT
<213> Homo sapiens

<400> 380
Ser Arg Ile Ser Ser Gly Thr Gly Asp Ile Phe Gln Gln His Ile Gln
1 5 10 15
Leu Glu Ser Thr
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<210> 381
<211> 20

<212> PRT

<213> Homo sapiens

<400> 381

Lys Asn Thr Val Thr Val Asp Asn Thr Val Gly Asn Asp Thr Met Phe
 1 5 10 15
 Leu Val Thr Trp
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<210> 382

<211> 20

<212> PRT

<213> Homo sapiens

<400> 382

Lys Pro Gly His Trp Thr Tyr Thr Leu Asn Asn Thr His His Ser Leu
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 Gln Ala Leu Lys
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<210> 383

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 383

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29

<210> 384

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 384

cggcctcgag tcacccctct atccgaacct tctgc

35

<210> 385

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 385

cggcgaattc cacgaaccac tcgcaagttc ag

32

<210> 386
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 <212> DNA
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<220>
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<400> 386
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<210> 387
 <211> 20
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<400> 387
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 1 5 10 15
 Ala Ala Ala Ser
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<210> 388
 <211> 19
 <212> PRT
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<400> 388
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 1 5 10 15
 Pro Glu Asp

<210> 389
 <211> 20
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<400> 389
 Ala Ala Ala Ala Ser Thr Gln Pro Glu Asp Asp Ile Asn Thr Gln Arg
 1 5 10 15
 Lys Lys Ser Gln
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<210> 390
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 <212> PRT
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<400> 390

Thr Gln Pro Glu Asp Asp Ile Asn Thr Gln Arg Lys Lys Ser Gln Glu
 1 5 10 15
 Lys Met Arg Glu
 20

<210> 391
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 391
 Asp Ile Asn Thr Gln Arg Lys Lys Ser Gln Glu Lys Met Arg Glu Val
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 Thr Asp Ser Pro
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<210> 392
 <211> 20
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<400> 392
 Arg Lys Lys Ser Gln Glu Lys Met Arg Glu Val Thr Asp Ser Pro Gly
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 Arg Pro Arg Glu
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<210> 393
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 1 5 10 15
 Thr Ile Pro Gln
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<210> 394
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<400> 394
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 Ser Ser His Gly
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<210> 395
 <211> 19
 <212> PRT
 <213> Homo sapiens

<400> 395
 Gly Arg Pro Arg Glu Leu Thr Ile Pro Gln Thr Ser Ser His Gly Ala
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<210> 396
 <211> 19
 <212> PRT
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<400> 396
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 Asp Leu Glu

<210> 397
 <211> 20
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<400> 397
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 Lys Ile Pro Val
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<210> 398
 <211> 20
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 <213> Homo sapiens

<400> 398
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 Lys Thr Gly Tyr
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<210> 399
 <211> 20
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<400> 399

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<210> 400
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 Ala Leu Ser Gly
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<210> 401
 <211> 20
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 Lys Pro Ile Glu
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<210> 402
 <211> 20
 <212> PRT
 <213> Homo sapiens

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 1 5 10 15
 Lys Arg Gln Arg
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<210> 403
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 403
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 Arg Asn Ile Pro
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<210> 404
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 404
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 Val Leu Asp Ser
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<210> 405
 <211> 20
 <212> PRT
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<400> 405
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 1 5 10 15
 Leu Asp Lys Leu
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<210> 406
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 406
 Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu Glu
 1 5 10 15
 Asn Phe Thr Leu
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<210> 407
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 407
 Asn Gly Phe Gln Leu Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro
 1 5 10 15
 Asp Glu Thr Ala
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<210> 408
 <211> 20
 <212> PRT
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<400> 408

Lys Val Ala Tyr Ile Pro Asp Glu Thr Ala Ala Gln Gln Asn Pro Leu
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 Gln Gln Pro Arg
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<210> 409
 <211> 20
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 1 5 10 15
 Gln Arg Gly Ser
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<210> 410
 <211> 20
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<400> 410
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 Gly Ser Val Ser
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<210> 411
 <211> 20
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<400> 411
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 1 5 10 15
 Leu Pro Leu Arg
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<210> 412
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 412
 Lys Gln Lys Pro Cys Asp Leu Pro Leu Arg Leu Leu Val Pro Thr Gln
 1 5 10 15
 Phe Val Gly Ala
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<210> 413
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 413
 Leu Leu Val Pro Thr Gln Phe Val Gly Ala Ile Ile Gly Lys Glu Gly
 1 5 10 15
 Ala Thr Ile Arg
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<210> 414
 <211> 20
 <212> PRT
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<400> 414
 Ile Ile Gly Lys Glu Gly Ala Thr Ile Arg Asn Ile Thr Lys Gln Thr
 1 5 10 15
 Gln Ser Lys Ile
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<210> 415
 <211> 20
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 <213> Homo sapiens

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 Asn Ile Thr Lys Gln Thr Gln Ser Lys Ile Asp Val His Arg Lys Glu
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 Asn Ala Gly Ala
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<210> 416
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 416
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 Ile Leu Ser Thr
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<210> 417
 <211> 20
 <212> PRT
 <213> Homo sapiens

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 Ala Cys Lys Ser
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<210> 418
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 418
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 1 5 10 15
 Lys Glu Ala Gln
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<210> 419
 <211> 20
 <212> PRT
 <213> Homo sapiens

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 1 5 10 15
 Glu Ile Pro Leu
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<210> 420
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 <212> DNA
 <213> Homo sapiens

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 catctagaaa gaagcgctta agatgtggca gcccctcttc ttcaagtggc tcttgtcctg 180
 ttgccctggg agttctcaaa ttgctgcagc agcctccacc cagcctgagg atgacatcaa 240
 tacacagagg aagaagagtc aggaaaagat gagagaagtt acagactctc ctgggcgacc 300
 ccgagagctt accattcctc agacttcttc acatggtgct aacagatttg ttcctaaaag 360
 taaagctcta gaggccgtca aattggcaat agaagccggg ttccaccata ttgattctgc 420
 acatgtttac aataatgagg agcaggttgg actgg 455

<210> 421
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer

<400> 421

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24

<210> 422

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 422

catgagaatt catcacatgc ccttgaaggc tccc

34

<210> 423

<211> 161

<212> PRT

<213> Homo sapiens

<400> 423

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gln | His | His | His | His | His | His | His | Thr | Ser | Val | Arg | Val | Ala | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Tyr | Phe | Glu | Asn | Phe | Leu | Ala | Ala | Trp | Arg | Pro | Val | Lys | Ala | Ser | Asp |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Gly | Asp | Tyr | Tyr | Thr | Leu | Ala | Val | Pro | Met | Gly | Asp | Val | Pro | Met | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Ile | Ser | Val | Ala | Asp | Ile | Gly | Ala | Ala | Val | Ser | Ser | Ile | Phe | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Pro | Glu | Glu | Phe | Leu | Gly | Lys | Ala | Val | Gly | Leu | Ser | Ala | Glu | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Leu | Thr | Ile | Gln | Gln | Tyr | Ala | Asp | Val | Leu | Ser | Lys | Ala | Leu | Gly | Lys |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Glu | Val | Arg | Asp | Ala | Lys | Ile | Thr | Pro | Glu | Ala | Phe | Glu | Lys | Leu | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Pro | Ala | Ala | Lys | Glu | Ile | Ala | Asn | Met | Cys | Arg | Phe | Tyr | Glu | Met |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Lys | Pro | Asp | Arg | Asp | Val | Asn | Leu | Thr | His | Gln | Leu | Asn | Pro | Lys | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Lys | Ser | Phe | Ser | Gln | Phe | Ile | Ser | Glu | Asn | Gln | Gly | Ala | Phe | Lys | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Met | | | | | | | | | | | | | | | |

<210> 424

<211> 489

<212> DNA

<213> Homo sapiens

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 ccgatgggag atgtaccaat ggatggtatc tctgttgctg atattggagc agccgtctct 180
 agcattttta attctccaga ggaattttta ggcaaggccg tggggctcag tgcagaagca 240
 ctaacaatac agcaatatgc tgatgttttg tccaaggctt tggggaaaga agtccgagat 300

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gcaaagatta ccccggaagc tttcgagaag ctgggattcc ctgcagcaaa ggaaatagcc 360
aatatgtgtc gtttctatga aatgaagcca gaccgagatg tcaatctcac ccaccaacta 420
aatcccaaag tcaaaagctt cagccagttt atctcagaga accagggagc cttcaagggc 480
atgtgatga                                         489

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<210> 425

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 425

aacaaactgt atactcgaaa cctcagcgag aa

32

<210> 426

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 426

ccatagaatt cattacttcc gtcttgactg agg

33

<210> 427

<211> 586

<212> PRT

<213> Homo sapiens

<400> 427

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Met Gln His His His His His Asn Lys Leu Tyr Ile Gly Asn Leu
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Ser Glu Asn Ala Ala Pro Ser Asp Leu Glu Ser Ile Phe Lys Asp Ala
          20          25          30
Lys Ile Pro Val Ser Gly Pro Phe Leu Val Lys Thr Gly Tyr Ala Phe
      35          40          45
Val Asp Cys Pro Asp Glu Ser Trp Ala Leu Lys Ala Ile Glu Ala Leu
      50          55          60
Ser Gly Lys Ile Glu Leu His Gly Lys Pro Ile Glu Val Glu His Ser
65          70          75          80
Val Pro Lys Arg Gln Arg Ile Arg Lys Leu Gln Ile Arg Asn Ile Pro
          85          90          95
Pro His Leu Gln Trp Glu Val Leu Asp Ser Leu Leu Val Gln Tyr Gly
          100         105         110
Val Val Glu Ser Cys Glu Gln Val Asn Thr Asp Ser Glu Thr Ala Val
          115         120         125
Val Asn Val Thr Tyr Ser Ser Lys Asp Gln Ala Arg Gln Ala Leu Asp
          130         135         140
Lys Leu Asn Gly Phe Gln Leu Glu Asn Phe Thr Leu Lys Val Ala Tyr
145         150         155         160
Ile Pro Asp Glu Thr Ala Ala Gln Gln Asn Pro Leu Gln Gln Pro Arg

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| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|-----|--|--|--|
| | | | | | | | | | | 165 | | | | 170 | | | | 175 | | | |
| Gly | Arg | Arg | Gly | Leu | Gly | Gln | Arg | Gly | Ser | Ser | Arg | Gln | Gly | Ser | Pro | | | | | | |
| | | | 180 | | | | | 185 | | | | 190 | | | | | | | | | |
| Gly | Ser | Val | Ser | Lys | Gln | Lys | Pro | Cys | Asp | Leu | Pro | Leu | Arg | Leu | Leu | | | | | | |
| | | | 195 | | | | 200 | | | | 205 | | | | | | | | | | |
| Val | Pro | Thr | Gln | Phe | Val | Gly | Ala | Ile | Ile | Gly | Lys | Glu | Gly | Ala | Thr | | | | | | |
| | | | 210 | | | | 215 | | | | 220 | | | | | | | | | | |
| Ile | Arg | Asn | Ile | Thr | Lys | Gln | Thr | Gln | Ser | Lys | Ile | Asp | Val | His | Arg | | | | | | |
| 225 | | | | 230 | | | | | | 235 | | | 240 | | | | | | | | |
| Lys | Glu | Asn | Ala | Gly | Ala | Ala | Glu | Lys | Ser | Ile | Thr | Ile | Leu | Ser | Thr | | | | | | |
| | | | 245 | | | | | | 250 | | | 255 | | | | | | | | | |
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| Lys | Gly | Asn | Val | Glu | Thr | Cys | Ala | Lys | Ala | Glu | Glu | Glu | Ile | Met | Lys | | | | | | |
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| Lys | Ile | Arg | Glu | Ser | Tyr | Glu | Asn | Asp | Ile | Ala | Ser | Met | Asn | Leu | Gln | | | | | | |
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| Leu | Phe | Ile | Pro | Ala | Leu | Ser | Val | Gly | Ala | Ile | Ile | Gly | Lys | Gln | Gly | | | | | | |
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| Ala | Ala | Asn | Gly | Arg | Tyr | Ser | Leu | Lys | Val | His | Val | Asn | His | Ser | Pro | | | |
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| 755 | | | | | | | 760 | | | | | | 765 | | | | | |
| Phe | Asp | Gln | Gly | Gln | Ala | Thr | Ser | Tyr | Glu | Ile | Arg | Met | Ser | Lys | Ser | | | |
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Lys Ala Leu Glu Ala Val Lys Leu Ala Ile Glu Ala Gly Phe His His
 85          90          95
Ile Asp Ser Ala His Val Tyr Asn Asn Glu Glu Gln Val Gly Leu Ala
100          105          110
Ile Arg Ser Lys Ile Ala Asp Gly Ser Val Lys Arg Glu Asp Ile Phe
115          120          125
Tyr Thr Ser Lys Leu Trp Ser Asn Ser His Arg Pro Glu Leu Val Arg
130          135          140
Pro Ala Leu Glu Arg Ser Leu Lys Asn Leu Gln Leu Asp Tyr Val Asp
145          150          155          160
Leu Tyr Leu Ile His Phe Pro Val Ser Val Lys Pro Gly Glu Glu Val
165          170          175
Ile Pro Lys Asp Glu Asn Gly Lys Ile Leu Phe Asp Thr Val Asp Leu
180          185          190
Cys Ala Thr Trp Glu Ala Met Glu Lys Cys Lys Asp Ala Gly Leu Ala
195          200          205
Lys Ser Ile Gly Val Ser Asn Phe Asn His Arg Leu Leu Glu Met Ile
210          215          220
Leu Asn Lys Pro Gly Leu Lys Tyr Lys Pro Val Cys Asn Gln Val Glu
225          230          235          240
Cys His Pro Tyr Phe Asn Gln Arg Lys Leu Leu Asp Phe Cys Lys Ser
245          250          255

```

Lys Asp Ile Val Leu Val Ala Tyr Ser Ala Leu Gly Ser His Arg Glu
 260 265 270
 Glu Pro Trp Val Asp Pro Asn Ser Pro Val Leu Leu Glu Asp Pro Val
 275 280 285
 Leu Cys Ala Leu Ala Lys Lys His Lys Arg Thr Pro Ala Leu Ile Ala
 290 295 300
 Leu Arg Tyr Gln Leu Gln Arg Gly Val Val Val Leu Ala Lys Ser Tyr
 305 310 315 320
 Asn Glu Gln Arg Ile Arg Gln Asn Val Gln Val Phe Glu Phe Gln Leu
 325 330 335
 Thr Ser Glu Glu Met Lys Ala Ile Asp Gly Leu Asn Arg Asn Val Arg
 340 345 350
 Tyr Leu Thr Leu Asp Ile Phe Ala Gly Pro Pro Asn Tyr Pro Phe Ser
 355 360 365
 Asp Glu Tyr
 370

<210> 434
 <211> 1119
 <212> DNA
 <213> Homo sapiens

<400> 434
 atgcagcatc accaccatca ccaactggcag cccctcttct tcaagtggct cttgtcctgt 60
 tgccctggga gttctcaaat tgctgcagca gcctccaccc agcctgagga tgacatcaat 120
 acacagagga agaagagtca ggaaaagatg agagaagtta cagactctcc tgggcgaccc 180
 cgagagctta ccattcctca gacttcttca catggtgcta acagatttgt tcctaaaagt 240
 aaagctctag aggccgtcaa attggcaata gaagccgggt tccaccatat tgattctgca 300
 catgtttaca ataatagagga gcaggttgga ctggccatcc gaagcaagat tgcagatggc 360
 agtgtgaaga gagaagacat attctacact tcaaagcttt ggagcaattc ccatcgacca 420
 gagttggtcc gaccagcctt ggaaagggtca ctgaaaaatc ttcaattgga ctatgttgac 480
 ctctatctta ttcatTTTTcc agtgtctgta aagccaggtg aggaagtgat cccaaaagat 540
 gaaaatggaa aaatactatt tgacacagtg gatctctgtg ccacatggga ggccatggag 600
 aagtgtaaag atgcaggatt ggccaagtcc atcggggtgt ccaacttcaa ccacaggctg 660
 ctggagatga tcttcaacaa gccagggtc aagtacaagc ctgtctgcaa ccaggtggaa 720
 tgtcatcctt acttcaacca gagaaaactg ctggatttct gcaagtcaaa agacattggt 780
 ctggttgcc atagtgtct gggatcccat cgagaagaac catgggtgga cccgaactcc 840
 ccggtgctct tggaggaccc agtcctttgt gccttggcaa aaaagcacia gcgaacccca 900
 gccctgattg ccctgcgcta ccagctgcag cgtggggttg tggctctggc caagagctac 960
 aatgagcagc gcatcagaca gaacgtgcag gtgtttgaat tccagttgac ttcagaggag 1020
 atgaaagcca tagatggcct aaacagaaat gtgcatatt tgacccttga tatttttgct 1080
 ggcccccta attatccatt ttctgatgaa tattaatga 1119

<210> 435
 <211> 36
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 435
 ggatccgccg ccaccatgac atccattcga gctgta

<210> 436
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 436
 gtcgactcag ctggaccaca gccgcag 27

<210> 437
 <211> 37
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 437
 ggatccgccg ccaccatgga ctccctggacc ttctgct 37

<210> 438
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 438
 gtcgactcag aaatcctttc tcttgac 27

<210> 439
 <211> 933
 <212> DNA
 <213> Homo sapiens

<400> 439
 atggactcct ggaccttctg ctgtgtgtcc ctttgcatcc tggtagcaaa gcacacagat 60
 gctggagtta tccagtcacc ccggcacgag gtgacagaga tgggacaaga agtgactctg 120
 agatgtaaac caatttcagg acacgactac cttttctggt acagacagac catgatgcgg 180
 ggactggagt tgctcattta ctttaacaac aacgttccga tagatgattc agggatgccc 240
 gaggatcgat tctcagctaa gatgcctaata gcatcattct ccactctgaa gatccagccc 300
 tcagaaccca gggactcagc tgtgtacttc tgtgccagca gtttagttgg agcaaacact 360
 gaagcctttct ttggacaagg caccagactc acagttgtag aggacctgaa caagggtgttc 420
 ccaccccgagg tcgctgtgtt tgagccatca gaagcagaga tctccacac ccaaaaggcc 480
 aactgggtgt gcctggccac aggcttcttc cctgaccacg tggagctgag ctggtgggtg 540
 aatgggaagg aggtgcacag tggggtcagc acggaccgc agccctcaa ggagcagccc 600
 gccctcaatg actccagata ctgcctgagc agccgcctga gggctctcggc caccttctgg 660
 cagaaccccc gcaaccactt ccgctgtcaa gtccagttct acgggctctc ggagaatgac 720
 gagtggaccc aggatagggc caaacccgct acccagatcg tcagcgccga ggcctggggg 780
 agagcagact gtggcctttac ctcggtgtcc taccagcaag gggtcctgtc tgccaccatc 840

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| ctctatgaga | tcctgctagg | gaaggccacc | ctgtatgctg | tgctggtcag | cgcccttggtg | 900 |
| ttgatggcca | tggtcaagag | aaaggatttc | tga | | | 933 |

<210> 440
 <211> 822
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|------------|------------|-------------|-------------|------------|------------|-----|
| <400> 440 | | | | | | |
| atgacatcca | ttcgagctgt | atztatattc | ctgtggctgc | agctggactt | ggtgaatgga | 60 |
| gagaatgtgg | agcagcatcc | ttcaaccctg | agtgtccagg | agggagacag | cgctgttatc | 120 |
| aagtgtactt | attcagacag | tgccctcaaac | tacttccctt | ggtataagca | agaacttgga | 180 |
| aaaagacctc | agcttattat | agacattcgt | tcaaagtgtg | gcgaaaagaa | agaccaacga | 240 |
| attgctgtta | cattgaacaa | gacagccaaa | catttctccc | tgacatcac | agagacccaa | 300 |
| cctgaagact | cggtgttcta | cttctgtgca | gcaagtatac | tgaacaccgg | taaccagttc | 360 |
| tattttggga | cagggacaag | tttgacgggc | attccaaata | tccagaacct | tgaccctgcc | 420 |
| gtgtaccagc | tgagagactc | taaatccagt | gacaagtctg | tctgcctatt | caccgatttt | 480 |
| gattctcaaa | caaatgtgtc | acaaagtaag | gattctgatg | tgtatatcac | agacaaaact | 540 |
| gtgctagaca | tgaggtctat | ggacttcaag | agcaacagtg | ctgtggcctg | gagcaacaaa | 600 |
| tctgactttg | catgtgcaaa | cgccctcaac | aacagcatta | ttccagaaga | caccttcttc | 660 |
| cccagcccag | aaagttcctg | tgatgtcaag | ctggctcgaga | aaagctttga | aacagatacg | 720 |
| aacctaaact | ttcaaaacct | gtcagtgatt | gggttccgaa | tcctcctcct | gaaagtggcc | 780 |
| gggtttaatc | tgctcatgac | gctgcggctg | tggtccagct | ga | | 822 |

<210> 441
 <211> 2311
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|------------|------------|-------------|------------|-------------|-------------|------|
| <400> 441 | | | | | | |
| gatttaatcc | tatgacaaac | taagttgggt | ctgtcttcac | ctgttttggt | gaggttggtg | 60 |
| aagagttggg | gtttgctcag | gaagagattt | aagcatgctt | gcttaccag | actcagagaa | 120 |
| gtctccctgt | tctgtcctag | ctatgttcc | gtgttggtg | cattcgtctt | ttccagagca | 180 |
| aaccgcccag | agtagaagat | ggattggggc | acgctgcaga | cgatcctggg | gggtgtgaac | 240 |
| aaacactcca | ccagcattgg | aaagatctgg | ctcacctgcc | tcttcatttt | tcgcattatg | 300 |
| atcctcggtg | tggtgcaaa | ggaggtgtgg | ggagatgagc | aggccgactt | tgtctgcaac | 360 |
| accctgcagc | caggtgcaa | gaacgtgtgc | tacgatcact | acttccccat | ctcccacatc | 420 |
| cggtatggg | ccctgcagct | gatcttctgt | tccagcccag | cgctcctagt | ggccatgcac | 480 |
| gtggcctacc | ggagacatga | gaagaagagg | aagttcatca | agggggagat | aaagagtga | 540 |
| tttaaggaca | tcgaggagat | caaaaccag | aaggtccgca | tcgaaggctc | cctgtggtgg | 600 |
| acctacacaa | gcagcatctt | cttccgggtc | atcttcgaag | ccgccttcat | gtacgtcttc | 660 |
| tatgtcatgt | acgacggctt | ctccatgcag | cggctgggtg | agtgcacgc | ctggccttgt | 720 |
| cccaacactg | tgactgctt | tgtgtcccg | cccacggaga | agactgtctt | cacagtgttc | 780 |
| atgattgcag | tgtctggaat | ttgcatactg | ctgaatgtca | ctgaattgtg | ttatttgcta | 840 |
| attagatatt | gttctgggaa | gtcaaaaaag | ccagtttaac | gcattgcccc | gttggttagat | 900 |
| taagaaatag | acagcatgag | agggatgagg | caaccctgtc | tcagctgtca | aggctcagtc | 960 |
| gccagcattt | cccaacacaa | agattctgac | cttaaatgca | accatttgaa | accctgtag | 1020 |
| gcctcaggtg | aaactccaga | tgccacaatg | agctctgtc | ccctaaagcc | tcaaaaacaa | 1080 |
| ggcctaattc | tatgctgtc | ttaattttct | ttcacttaag | ttagttccac | tgagacccca | 1140 |
| ggctgttagg | ggttattggt | gtaagggtact | ttcatatttt | aaacagagga | tatcggcatt | 1200 |
| tgtttctttc | tctgaggaca | agagaaaaaa | gccaggttcc | acagaggaca | cagagaaggt | 1260 |
| ttgggtgtcc | tcctgggggt | ctttttgcca | actttcccca | cgttaaagggt | gaacattggt | 1320 |
| tctttcattt | gctttggaag | ttttaatctc | taacagtggg | caaagttaac | agtccttaa | 1380 |

```

actctgttac actttttgga agtgaaaact ttgtagtatg atagggttatt ttgatgtaaa 1440
gatgttcttg ataccattat atgttccccc tgtttcagag gtcagattg taatatgtaa 1500
atggtatgtc attcgctact atgatttaat ttgaaatatg gtcttttggg tatgaatact 1560
ttgcagcaca gctgagagag gctgtctgtt gtattcattg tggcatagc acctaacaac 1620
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ggcctcatgt caaatattag atgtaatttt gtgtaagaaa tacagactgg atgtaccacc 1740
aactactacc tgtaatgaca ggccgtgtcca acacatctcc cttttccatg ctgtggtagc 1800
cagcatcgga aagaacgctg atttaaagag gtgagcttgg gaattttatt gacacagtac 1860
catttaatgg ggagacaaaa atggggggcca ggggaggagg aagtttctgt cgtaaaaaac 1920
gagtttgaa agactggact ctaaattctg ttgattaaag atgagctttg tctaccttca 1980
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acatgtgaaa agaatagaag ctaagggtta gataaatatt gagcagatct ataggaagat 2100
tgaacctgaa tattgccatt atgcttgaca tggtttccaa aaaatggtac tccacatact 2160
tcagtgaggg taagtatttt cctgttgtca agaatagcac tgtaaaagca ttttgtaata 2220
ataaagaata gctttaatga tatgcttgta actaaaataa ttttgtaatg tatcaaatac 2280
atttaaaaca ttaaaatata atctctataa t 2311

```

<210> 442

<211> 226

<212> PRT

<213> Homo sapiens

<400> 442

```

Met Asp Trp Gly Thr Leu Gln Thr Ile Leu Gly Gly Val Asn Lys His
          5              10              15

```

```

Ser Thr Ser Ile Gly Lys Ile Trp Leu Thr Val Leu Phe Ile Phe Arg
          20              25              30

```

```

Ile Met Ile Leu Val Val Ala Ala Lys Glu Val Trp Gly Asp Glu Gln
          35              40              45

```

```

Ala Asp Phe Val Cys Asn Thr Leu Gln Pro Gly Cys Lys Asn Val Cys
          50              55              60

```

```

Tyr Asp His Tyr Phe Pro Ile Ser His Ile Arg Leu Trp Ala Leu Gln
          65              70              75              80

```

```

Leu Ile Phe Val Ser Ser Pro Ala Leu Leu Val Ala Met His Val Ala
          85              90              95

```

```

Tyr Arg Arg His Glu Lys Lys Arg Lys Phe Ile Lys Gly Glu Ile Lys
          100             105             110

```

```

Ser Glu Phe Lys Asp Ile Glu Glu Ile Lys Thr Gln Lys Val Arg Ile
          115             120             125

```

```

Glu Gly Ser Leu Trp Trp Thr Tyr Thr Ser Ser Ile Phe Phe Arg Val
          130             135             140

```

```

Ile Phe Glu Ala Ala Phe Met Tyr Val Phe Tyr Val Met Tyr Asp Gly
          145             150             155             160

```

```

Phe Ser Met Gln Arg Leu Val Lys Cys Asn Ala Trp Pro Cys Pro Asn

```

165 170 175
 Thr Val Asp Cys Phe Val Ser Arg Pro Thr Glu Lys Thr Val Phe Thr
 180 185 190
 Val Phe Met Ile Ala Val Ser Gly Ile Cys Ile Leu Leu Asn Val Thr
 195 200 205
 Glu Leu Cys Tyr Leu Leu Ile Arg Tyr Cys Ser Gly Lys Ser Lys Lys
 210 215 220
 Pro Val
 225

<210> 443
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 443
 Val Lys Leu Cys Gly Ile Asp Pro Cys Pro Asn Leu Val Asp Cys Phe
 5 10 15
 Ile Ser Arg Pro Gly Cys Gly
 20

<210> 444
 <211> 36
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer

<400> 444
 caatcaggca tgcacaacaa actgtatatc ggaaac

36

<210> 445
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer

<400> 445
 cgtcaagatc ttcattactt ccgtcttgac

30

<210> 446
 <211> 579

<212> PRT

<213> Homo sapiens

<400> 446

```

Met Asn Lys Leu Tyr Ile Gly Asn Leu Ser Glu Asn Ala Ala Pro Ser
      5                      10                      15

Asp Leu Glu Ser Ile Phe Lys Asp Ala Lys Ile Pro Val Ser Gly Pro
      20                      25                      30

Phe Leu Val Lys Thr Gly Tyr Ala Phe Val Asp Cys Pro Asp Glu Ser
      35                      40                      45

Trp Ala Leu Lys Ala Ile Glu Ala Leu Ser Gly Lys Ile Glu Leu His
      50                      55                      60

Gly Lys Pro Ile Glu Val Glu His Ser Val Pro Lys Arg Gln Arg Ile
      65                      70                      75                      80

Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu Val
      85                      90                      95

Leu Asp Ser Leu Leu Val Gln Tyr Gly Val Val Glu Ser Cys Glu Gln
      100                      105                      110

Val Asn Thr Asp Ser Glu Thr Ala Val Val Asn Val Thr Tyr Ser Ser
      115                      120                      125

Lys Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu
      130                      135                      140

Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro Asp Glu Thr Ala Ala
      145                      150                      155                      160

Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly Gln
      165                      170                      175

Arg Gly Ser Ser Arg Gln Gly Ser Pro Gly Ser Val Ser Lys Gln Lys
      180                      185                      190

Pro Cys Asp Leu Pro Leu Arg Leu Leu Val Pro Thr Gln Phe Val Gly
      195                      200                      205

Ala Ile Ile Gly Lys Glu Gly Ala Thr Ile Arg Asn Ile Thr Lys Gln
      210                      215                      220

Thr Gln Ser Lys Ile Asp Val His Arg Lys Glu Asn Ala Gly Ala Ala
      225                      230                      235                      240

Glu Lys Ser Ile Thr Ile Leu Ser Thr Pro Glu Gly Thr Ser Ala Ala
      245                      250                      255

Cys Lys Ser Ile Leu Glu Ile Met His Lys Glu Ala Gln Asp Ile Lys
      260                      265                      270

```

Phe Thr Glu Glu Ile Pro Leu Lys Ile Leu Ala His Asn Asn Phe Val
 275 280 285
 Gly Arg Leu Ile Gly Lys Glu Gly Arg Asn Leu Lys Lys Ile Glu Gln
 290 295 300
 Asp Thr Asp Thr Lys Ile Thr Ile Ser Pro Leu Gln Glu Leu Thr Leu
 305 310 315 320
 Tyr Asn Pro Glu Arg Thr Ile Thr Val Lys Gly Asn Val Glu Thr Cys
 325 330 335
 Ala Lys Ala Glu Glu Glu Ile Met Lys Lys Ile Arg Glu Ser Tyr Glu
 340 345 350
 Asn Asp Ile Ala Ser Met Asn Leu Gln Ala His Leu Ile Pro Gly Leu
 355 360 365
 Asn Leu Asn Ala Leu Gly Leu Phe Pro Pro Thr Ser Gly Met Pro Pro
 370 375 380
 Pro Thr Ser Gly Pro Pro Ser Ala Met Thr Pro Pro Tyr Pro Gln Phe
 385 390 395 400
 Glu Gln Ser Glu Thr Glu Thr Val His Leu Phe Ile Pro Ala Leu Ser
 405 410 415
 Val Gly Ala Ile Ile Gly Lys Gln Gly Gln His Ile Lys Gln Leu Ser
 420 425 430
 Arg Phe Ala Gly Ala Ser Ile Lys Ile Ala Pro Ala Glu Ala Pro Asp
 435 440 445
 Ala Lys Val Arg Met Val Ile Ile Thr Gly Pro Pro Glu Ala Gln Phe
 450 455 460
 Lys Ala Gln Gly Arg Ile Tyr Gly Lys Ile Lys Glu Glu Asn Phe Val
 465 470 475 480
 Ser Pro Lys Glu Glu Val Lys Leu Glu Ala His Ile Arg Val Pro Ser
 485 490 495
 Phe Ala Ala Gly Arg Val Ile Gly Lys Gly Gly Lys Thr Val Asn Glu
 500 505 510
 Leu Gln Asn Leu Ser Ser Ala Glu Val Val Val Pro Arg Asp Gln Thr
 515 520 525
 Pro Asp Glu Asn Asp Gln Val Val Val Lys Ile Thr Gly His Phe Tyr
 530 535 540
 Ala Cys Gln Val Ala Gln Arg Lys Ile Gln Glu Ile Leu Thr Gln Val
 545 550 555 560

Lys Gln His Gln Gln Gln Lys Ala Leu Gln Ser Gly Pro Pro Gln Ser
 565 570 575

Arg Arg Lys

<210> 447
 <211> 1743
 <212> DNA
 <213> Homo sapiens

<400> 447
 atgaacaaac tgtatatcgg aaacctcagc gagaacgccg cccctcggga cctagaaagt 60
 atcttcaagg acgccaagat cccggtgtcg ggaccttcc tggagaagac tggctacgcg 120
 ttcgtggact gcccgacga gagctgggac ctcaaggcca tcgaggcgct ttcaggtaaa 180
 atagaactgc acgggaaacc catagaagtt gagcactcg tcccaaaaag gcaaaggatt 240
 cggaaacttc agatacgaat tatccgcct catctacagt gggaggtgct ggatagttta 300
 ctagtccagt atggagtggg ggagagctgt gagcaagtga aactgactc ggaaactgca 360
 gttgtaaatg taacctattc cagtaaggac caagctagac aagcactaga caaactgaat 420
 ggatttcagt tagagaattt caccttgaaa gtagcctata tccctgatga aacggccgcc 480
 cagcaaaacc ccttcagca gcccgagggt cggcgggggc ttgggcagag gggctcctca 540
 aggaggggt ctccaggatc cgtatccaag cagaaaccat gtgatttgcc tctgcgcctg 600
 ctggttccca cccaatttgt tggagccatc ataggaaaag aaggtgccac cattcggaac 660
 atcaccaaac agaccagtc taaaatcgat gtccaccgta aagaaaatgc gggggctgct 720
 gagaagtcca ttactatcct ctctactcct gaaggcacct ctgaggcttg taagtctatt 780
 ctggagatta tgcataagga agctcaagat ataaaattca cagaagagat ccccttgaag 840
 attttagctc ataataactt tgttggacgt cttattggtg aagaaggaag aaatcttaaa 900
 aaaattgagc aagacaçaga cactaaaatc acgatatctc cattgcagga attgacgctg 960
 tataatccag aacgcactat tacagttaaa ggcaatgttg agacatgtgc caaagctgag 1020
 gaggagatca tgaagaaaat caggaggtct tatgaaaatg atattgcttc tatgaatctt 1080
 caagcacatt taattccttg attaaatctg aacgccttg gtctgttccc acccacttca 1140
 gggatgccac ctcccacctc agggccccct tcagccatga ctctcccta cccgcagttt 1200
 gagcaatcag aaacggagac tgttcactctg tttatcccag ctctatcagt cggtgccatc 1260
 atcggcaagc agggccagca catcaagcag ctttctcgct ttgctggagc ttcaattaag 1320
 attgctccag cggaagcacc agatgctaaa gtgaggatgg tgattatcac tggaccacca 1380
 gaggtcagt tcaaggctca gggaagaatt tatggaaaaa ttaaagaaga aaactttgtt 1440
 agtcctaaag aagaggtgaa acttgaagct catatcagag tgccatcctt tgctgctggc 1500
 agagttattg gaaaaggagg caaaacgggtg aatgaacttc agaatttgtc aagtgcagaa 1560
 gttgttgtcc ctctgacca gacacctgat gagaatgacc aagtggttgt caaaataact 1620
 ggtcacttct atgcttgcca ggttgcccag agaaaaattc aggaattct gactcaggta 1680
 aagcagcacc aacaacagaa ggctctgcaa agtggaccac ctcagtcaag acggaagtaa 1740
 tga 1743

<210> 448
 <211> 35
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer

<400> 448

cgtactagca tatgaacaaa ctgtatatcg gaaac

35

<210> 449

<211> 579

<212> PRT

<213> Homo sapiens

<400> 449

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Met Asn Lys Leu Tyr Ile Gly Asn Leu Ser Glu Asn Ala Ala Pro Ser
      5                      10                      15

Asp Leu Glu Ser Ile Phe Lys Asp Ala Lys Ile Pro Val Ser Gly Pro
      20                      25                      30

Phe Leu Val Lys Thr Gly Tyr Ala Phe Val Asp Cys Pro Asp Glu Ser
      35                      40                      45

Trp Ala Leu Lys Ala Ile Glu Ala Leu Ser Gly Lys Ile Glu Leu His
      50                      55                      60

Gly Lys Pro Ile Glu Val Glu His Ser Val Pro Lys Arg Gln Arg Ile
      65                      70                      75                      80

Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu Val
      85                      90                      95

Leu Asp Ser Leu Leu Val Gln Tyr Gly Val Val Glu Ser Cys Glu Gln
      100                     105                     110

Val Asn Thr Asp Ser Glu Thr Ala Val Val Asn Val Thr Tyr Ser Ser
      115                     120                     125

Lys Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu
      130                     135                     140

Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro Asp Glu Thr Ala Ala
      145                     150                     155                     160

Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly Gln
      165                     170                     175

Arg Gly Ser Ser Arg Gln Gly Ser Pro Gly Ser Val Ser Lys Gln Lys
      180                     185                     190

Pro Cys Asp Leu Pro Leu Arg Leu Leu Val Pro Thr Gln Phe Val Gly
      195                     200                     205

Ala Ile Ile Gly Lys Glu Gly Ala Thr Ile Arg Asn Ile Thr Lys Gln
      210                     215                     220
Thr Gln Ser Lys Ile Asp Val His Arg Lys Glu Asn Ala Gly Ala Ala
      225                     230                     235                     240

Glu Lys Ser Ile Thr Ile Leu Ser Thr Pro Glu Gly Thr Ser Ala Ala

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| | | | | | | | | | | | | | | | | |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| 245 | | | | | | | | 250 | | | | | 255 | | | |
| Cys | Lys | Ser | Ile 260 | Leu | Glu | Ile | Met | His 265 | Lys | Glu | Ala | Gln | Asp 270 | Ile | Lys | |
| Phe | Thr | Glu 275 | Glu | Ile | Pro | Leu | Lys 280 | Ile | Leu | Ala | His | Asn 285 | Asn | Phe | Val | |
| Gly | Arg 290 | Leu | Ile | Gly | Lys | Glu 295 | Gly | Arg | Asn | Leu | Lys 300 | Lys | Ile | Glu | Gln | |
| Asp 305 | Thr | Asp | Thr | Lys 310 | Ile | Thr | Ile | Ser | Pro | Leu 315 | Gln | Glu | Leu | Thr | Leu 320 | |
| Tyr | Asn | Pro | Glu | Arg 325 | Thr | Ile | Thr | Val | Lys 330 | Gly | Asn | Val | Glu | Thr 335 | Cys | |
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| Val | Gly | Ala | Ile 420 | Ile | Gly | Lys | Gln | Gly 425 | Gln | His | Ile | Lys | Gln 430 | Leu | Ser | |
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<212> PRT
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<213> Homo sapiens

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35 40 45

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| gaagagatca | tgaagaaaat | tagggagtct | tatgaaaatg | atattgcttc | tatgaatctt | 1080 |
| caagcacatt | taattcctgg | attaaatctg | aacgccttgg | gtctgttccc | acccacttca | 1140 |
| gggatgccac | ctcccacctc | agggccccct | tacgccatga | ctcctcccta | cccgagttt | 1200 |
| gagcaatcag | aaacggagac | tgttcatctc | tttatcccgg | ctctatcagt | cggtgccatc | 1260 |
| attggcaagc | agggccagca | catcaagcag | ctttctcgct | ttgctggagc | ttcaattaa | 1320 |
| attgctccag | cagaagcacc | agatgctaaa | gtgaggatgg | tgattatcac | tggaccacca | 1380 |
| gaggctcagt | tcaaggctca | gggaagaatt | tatggaaaaa | ttaaagaaga | aaactttgtt | 1440 |
| agtcctaaag | aagaggtgaa | acttgaagct | catatcagag | tgccatgctt | tgctggtggc | 1500 |
| agagttattg | gaaaaggagg | caaaacggtg | aatgaacttc | agaatttgtc | aagtgcagaa | 1560 |
| gttgtttgtc | ctctgtacca | gacacctgat | gagaattgac | aagtggttgt | caaaataact | 1620 |
| ggtcacttct | atgcttgcca | ggttgccagg | agaaaaattc | aggaatttct | gactcaggta | 1680 |
| aagcaqcacc | aacaacagaa | ggctctgcaa | agtggaccac | ctcagtcaag | acggaagtaa | 1740 |

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<210> 484
<211> 579
<212> PRT
<213> primate
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<400> 484
Met Asn Lys Leu Tyr Ile Gly Asn Leu Ser Asp Asn Ala Ala Pro Ser
 5 10 15

Asp Leu Glu Ser Ile Phe Lys Asp Ala Lys Ile Pro Val Ser Gly Pro
20 25 30

Phe-Leu-Val-Lys-Thr-Gly-Tyr-Ala-Phe-Val-Asp-Cys-Pro-Asp-Glu-Ser
35 40 45

Trp Ala Leu Lys Ala Ile Glu Ala Leu Ser Gly Lys Ile Glu Leu His
50 55 60

Gly Lys Pro Ile Glu Val Glu His Ser Val Pro Lys Arg Gln Arg Ile
65 70 75 80

Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu Val
85 90 95

Leu Asp Ser Leu Leu Val Gln Tyr Gly Val Val Glu Ser Cys Glu Gln
100 105 110

Val Asn Thr Asp Ser Glu Thr Ala Val Val Asn Val Thr Tyr Ser Ser
115 120 125

Lys Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu
130 135 140

Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro Asp Glu Met Ala Ala
145 150 155 160

Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly Gln
165 170 175

Arg Gly Ser Ser Arg Gln Gly Ser Pro Gly Ser Val Ser Lys Gln Lys

| 180 | | | | | 185 | | | | | 190 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Cys | Asp | Leu | Pro | Leu | Arg | Leu | Leu | Val | Pro | Thr | Gln | Phe | Val | Gly |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Ala | Ile | Ile | Gly | Lys | Glu | Gly | Ala | Thr | Ile | Arg | Asn | Ile | Thr | Lys | Gln |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Thr | Gln | Ser | Lys | Ile | Asp | Val | His | Arg | Lys | Glu | Asn | Ala | Gly | Ala | Ala |
| | 225 | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Lys | Ser | Ile | Thr | Ile | Leu | Ser | Thr | Pro | Glu | Gly | Thr | Ser | Ala | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Cys | Lys | Ser | Ile | Leu | Glu | Ile | Met | His | Lys | Glu | Ala | Gln | Asp | Ile | Lys |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Phe | Thr | Glu | Glu | Ile | Pro | Leu | Lys | Ile | Leu | Ala | His | Asn | Asn | Phe | Val |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gly | Arg | Leu | Ile | Gly | Lys | Glu | Gly | Arg | Asn | Leu | Lys | Lys | Ile | Glu | Gln |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asp | Thr | Asp | Thr | Lys | Ile | Thr | Ile | Ser | Pro | Leu | Gln | Glu | Leu | Thr | Leu |
| | 305 | | | | 310 | | | | | 315 | | | | | 320 |
| Tyr | Asn | Pro | Glu | Arg | Thr | Ile | Thr | Val | Lys | Gly | Asn | Val | Glu | Thr | Cys |
| | | | | 325 | | | | | 330 | | | | 335 | | |
| Ala | Lys | Ala | Glu | Glu | Glu | Ile | Met | Lys | Lys | Ile | Arg | Glu | Ser | Tyr | Glu |
| | | | 340 | | | | 345 | | | | | 350 | | | |
| Asn | Asp | Ile | Ala | Ser | Met | Asn | Leu | Gln | Ala | His | Leu | Ile | Pro | Gly | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Asn | Leu | Asn | Ala | Leu | Gly | Leu | Phe | Pro | Pro | Thr | Ser | Gly | Met | Pro | Pro |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Pro | Thr | Ser | Gly | Pro | Pro | Ser | Ala | Met | Thr | Pro | Pro | Tyr | Pro | Gln | Phe |
| | 385 | | | | 390 | | | | | 395 | | | | | 400 |
| Glu | Gln | Ser | Glu | Thr | Glu | Thr | Val | His | Leu | Phe | Ile | Pro | Ala | Leu | Ser |
| | | | | 405 | | | | 410 | | | | | | 415 | |
| Val | Gly | Ala | Ile | Ile | Gly | Lys | Gln | Gly | Gln | His | Ile | Lys | Gln | Leu | Ser |
| | | | 420 | | | | 425 | | | | | 430 | | | |
| Arg | Phe | Ala | Gly | Ala | Ser | Ile | Lys | Ile | Ala | Pro | Ala | Glu | Ala | Pro | Asp |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ala | Lys | Val | Arg | Met | Val | Ile | Ile | Thr | Gly | Pro | Pro | Glu | Ala | Gln | Phe |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Lys | Ala | Gln | Gly | Arg | Ile | Tyr | Gly | Lys | Ile | Lys | Glu | Glu | Asn | Phe | Val |

465 470 475 480
 Ser Pro Lys Glu Glu Val Lys Leu Glu Ala His Ile Arg Val Pro Cys
 485 490 495
 Phe Ala Gly Gly Arg Val Ile Gly Lys Gly Gly Lys Thr Val Asn Glu
 500 505 510
 Leu Gln Asn Leu Ser Ser Ala Glu Val Val Val Pro Arg Asp Gln Thr
 515 520 525
 Pro Asp Glu Asn Asp Gln Val Val Val Lys Ile Thr Gly His Phe Tyr
 530 535 540
 Ala Cys Gln Val Ala Gln Arg Lys Ile Gln Glu Ile Leu Thr Gln Val
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 Lys Gln His Gln Gln Gln Lys Ala Leu Gln Ser Gly Pro Pro Gln Ser
 565 570 575

Arg Arg Lys

<210> 485

<211> 1799

<212> DNA

<213> Homo sapiens

<400> 485

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cgaggcgctt tcaggtaaaa tagaactgca cgggaaaccc atagaagtgt agcactcggg 240
cccaaaaagg caaaggattc ggaaacttca gatacgaaat atcccgccctc atttacagtg 300
ggaggtgctg gatagtttac tagtccagta tggagtgggtg gagagctgtg agcaagtgaa 360
cactgactcg gaaactgcag ttgtaaatgt aacctattcc agtaaggacc aagctagaca 420
agcactagac aaactgaatg gatttcagtt agagaatttc acctgaaag tagcctatat 480
ccctgatgaa acggccgccc agcaaaaccc cttgcagcag ccccgaggtc gccggggggt 540
tgggcagagg ggctcctcaa ggcaagggtc tccaggatcc gtatccaagc agaaaccatg 600
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gattatcact ggaccaccag aggctcagtt caaggctcag ggaagaattt atggaaaaat 1440

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taaagaagaa aactttgtta gtcctaaaga agaggtgaaa cttgaagctc atatcagagt 1500
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gaatttgta agtgacagaag ttgttgctcc tcgtgaccag acacctgatg agaataacca 1620
agtggttgtc aaaataactg gtcacttcta tgcttgccag gttgcccaga gaaaaattca 1680
ggaaattctg actcaggtaa agcagcacca acaacagaag gctctgcaaa gtggaccacc 1740
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<210> 486

<211> 589

<212> PRT

<213> Homo sapiens

<400> 486

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Asp Leu Glu Ser Ile Phe Lys Asp Ala Lys Ile Pro Val Ser Gly Pro
      20                      25                      30

Phe Leu Val Lys Thr Gly Tyr Ala Phe Val Asp Cys Pro Asp Glu Ser
      35                      40                      45

Trp Ala Leu Lys Ala Ile Glu Ala Leu Ser Gly Lys Ile Glu Leu His
      50                      55                      60

Gly Lys Pro Ile Glu Val Glu His Ser Val Pro Lys Arg Gln Arg Ile
      65                      70                      75                      80

Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu Val
      85                      90                      95

Leu Asp Ser Leu Leu Val Gln Tyr Gly Val Val Glu Ser Cys Glu Gln
      100                     105                     110

Val Asn Thr Asp Ser Glu Thr Ala Val Val Asn Val Thr Tyr Ser Ser
      115                     120                     125

Lys Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu
      130                     135                     140

Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro Asp Glu Thr Ala Ala
      145                     150                     155                     160

Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly Gln
      165                     170                     175

Arg Gly Ser Ser Arg Gln Gly Ser Pro Gly Ser Val Ser Lys Gln Lys
      180                     185                     190

Pro Cys Asp Leu Pro Leu Arg Leu Leu Val Pro Thr Gln Phe Val Gly
      195                     200                     205

Ala Ile Ile Gly Lys Glu Gly Ala Thr Ile Arg Asn Ile Thr Lys Gln
      210                     215                     220

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| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Thr | Gln | Ser | Lys | Ile | Asp | Val | His | Arg | Lys | Glu | Asn | Ala | Gly | Ala | Ala | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Glu | Lys | Ser | Ile | Thr | Ile | Leu | Ser | Thr | Pro | Glu | Gly | Thr | Ser | Ala | Ala | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | |
| Cys | Lys | Ser | Ile | Leu | Glu | Ile | Met | His | Lys | Glu | Ala | Gln | Asp | Ile | Lys | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Phe | Thr | Glu | Glu | Ile | Pro | Leu | Lys | Ile | Leu | Ala | His | Asn | Asn | Phe | Val | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Gly | Arg | Leu | Ile | Gly | Lys | Glu | Gly | Arg | Asn | Leu | Lys | Lys | Ile | Glu | Gln | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Asp | Thr | Asp | Thr | Lys | Ile | Thr | Ile | Ser | Pro | Leu | Gln | Glu | Leu | Thr | Leu | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| Tyr | Asn | Pro | Glu | Arg | Thr | Ile | Thr | Val | Lys | Gly | Asn | Val | Glu | Thr | Cys | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | | |
| Ala | Lys | Ala | Glu | Glu | Glu | Ile | Met | Lys | Lys | Ile | Arg | Glu | Ser | Tyr | Glu | | |
| | | | 340 | | | | | 345 | | | | | 350 | | | | |
| Asn | Asp | Ile | Ala | Ser | Met | Asn | Leu | Gln | Ala | His | Leu | Ile | Pro | Gly | Leu | | |
| | | 355 | | | | | 360 | | | | | 365 | | | | | |
| Asn | Leu | Asn | Ala | Leu | Gly | Leu | Phe | Pro | Pro | Thr | Ser | Gly | Met | Pro | Pro | | |
| | 370 | | | | | 375 | | | | | 380 | | | | | | |
| Pro | Thr | Ser | Gly | Pro | Pro | Ser | Ala | Met | Thr | Pro | Pro | Tyr | Pro | Gln | Phe | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | |
| Glu | Gln | Ser | Glu | Thr | Glu | Thr | Val | His | Leu | Phe | Ile | Pro | Ala | Leu | Ser | | |
| | | | | 405 | | | | | 410 | | | | | 415 | | | |
| Val | Gly | Ala | Ile | Ile | Gly | Lys | Gln | Gly | Gln | His | Ile | Lys | Gln | Leu | Ser | | |
| | | 420 | | | | | | 425 | | | | | 430 | | | | |
| Arg | Phe | Ala | Gly | Ala | Ser | Ile | Lys | Ile | Ala | Pro | Ala | Glu | Ala | Pro | Asp | | |
| | | 435 | | | | | 440 | | | | | 445 | | | | | |
| Ala | Lys | Val | Arg | Met | Val | Ile | Ile | Thr | Gly | Pro | Pro | Glu | Ala | Gln | Phe | | |
| | 450 | | | | | 455 | | | | | 460 | | | | | | |
| Lys | Ala | Gln | Gly | Arg | Ile | Tyr | Gly | Lys | Ile | Lys | Glu | Glu | Asn | Phe | Val | | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | | |
| Ser | Pro | Lys | Glu | Glu | Val | Lys | Leu | Glu | Ala | His | Ile | Arg | Val | Pro | Ser | | |
| | | | | 485 | | | | 490 | | | | | | 495 | | | |
| Phe | Ala | Ala | Gly | Arg | Val | Ile | Gly | Lys | Gly | Gly | Lys | Thr | Val | Asn | Glu | | |
| | | | 500 | | | | | 505 | | | | | 510 | | | | |

Leu Gln Asn Leu Ser Ser Ala Glu Val Val Val Pro Arg Asp Gln Thr
 515 520 525

Pro Asp Glu Asn Asp Gln Val Val Val Lys Ile Thr Gly His Phe Tyr
 530 535 540

Ala Cys Gln Val Ala Gln Arg Lys Ile Gln Glu Ile Leu Thr Gln Val
 545 550 555 560

Lys Gln His Gln Gln Gln Lys Ala Leu Gln Ser Gly Pro Pro Gln Ser
 565 570 575

Arg Arg Lys His His His His His His His His His His His
 580 585

<210> 487

<211> 49

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 487

gggggaattc gccgccacca tgaacaaact gtatatcgga aacctcagc 49

<210> 488

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 488

gggggaattc ttaatggtga tggatgatgat gatggtgatg atgcttccgt cttgactgag 60
 gtggtcc 67

<210> 489

<211> 30

<212> DNA

<213> Homo sapiens

<400> 489

tcagagaacc agggagcctt caagggcatg 30

<210> 490

<211> 10

<212> PRT

<213> Homo sapiens

<400> 490

Ser Glu Asn Gln Gly Ala Phe Lys Gly Met
5 10

<210> 491

<211> 9

<212> PRT

<213> Homo sapiens

<400> 491

Ala Ala Pro Ser Asp Leu Glu Ser Ile

<210> 492

<211> 20

<212> PRT

<213> Homo sapiens

<400> 492

Ser Thr Gly Asp Ala Asp Gly Pro Gly Gly Pro Gly Ile Pro Asp Gly
5 10 15

Pro Gly Gly Asn
20

<210> 493

<211> 20

<212> PRT

<213> Homo sapiens

<400> 493

Pro Gly Ile Pro Asp Gly Pro Gly Gly Asn Ala Gly Gly Pro Gly Glu
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Ala Gly Ala Thr
20

<210> 494

<211> 20

<212> PRT

<213> Homo sapiens

<400> 494

Tyr Leu Ala Met Pro Phe Ala Thr Pro Met Glu Ala Glu Leu Ala Arg
5 10 15

Arg Ser Leu Ala
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<210> 495

<211> 20

<212> PRT

<213> Homo sapiens

<400> 495

Trp Ile Thr Gln Cys Phe Leu Pro Val Phe Leu Ala Gln Pro Pro Ser
 5 10 15

Gly Gln Arg Arg
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<210> 496

<211> 20

<212> PRT

<213> Homo sapiens

<400> 496

Gly Gly Arg Gly Pro Arg Gly Ala Gly Ala Ala Arg Ala Ser Gly Pro
 1 5 10 15

Gly Gly Gly Ala
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<210> 497

<211> 20

<212> PRT

<213> Homo sapiens

<400> 497

Lys Ile Ala Pro Ala Glu Ala Pro Asp Ala Lys Val Arg Met Val Ile
 5 10 15

Ile Thr Gly Pro
 20

<210> 498

<211> 20

<212> PRT

<213> Homo sapiens

<400> 498

Lys Ile Ala Pro Pro Glu Thr Pro Asp Ser Lys Val Arg Met Val Ile
 5 10 15

Ile Thr Gly Pro
 20

<210> 499

<211> 20

<212> PRT

<213> Homo sapiens

<400> 499

Lys Ile Ala Pro Ala Glu Gly Pro Asp Val Ser Glu Arg Met Val Ile
 5 10 15

Ile Thr Gly Pro
 20

<210> 500

<211> 577

<212> PRT

<213> Homo sapiens

<400> 500

Met Asn Lys Leu Tyr Ile Gly Asn Leu Asn Glu Ser Val Thr Pro Ala
 5 10 15

Asp Leu Glu Lys Val Phe Ala Glu His Lys Ile Ser Tyr Ser Gly Gln
 20 25 30

Phe Leu Val Lys Ser Gly Tyr Ala Phe Val Asp Cys Pro Asp Glu His
 35 40 45

Trp Ala Met Lys Ala Ile Glu Thr Phe Ser Gly Lys Val Glu Leu Gln
 50 55 60

Gly Lys Arg Leu Glu Ile Glu His Ser Val Pro Lys Lys Gln Arg Ser
 65 70 75 80

Arg Lys Ile Gln Ile Arg Asn Ile Pro Pro Gln Leu Arg Trp Glu Val
 85 90 95

Leu Asp Ser Leu Leu Ala Gln Tyr Gly Thr Val Glu Asn Cys Glu Gln
 100 105 110

Val Asn Thr Glu Ser Glu Thr Ala Val Val Asn Val Thr Tyr Ser Asn
 115 120 125

Arg Glu Gln Thr Arg Gln Ala Ile Met Lys Leu Asn Gly His Gln Leu
 130 135 140

Glu Asn His Ala Leu Lys Val Ser Tyr Ile Pro Asp Glu Gln Ile Ala
 145 150 155 160

Gln Gly Pro Glu Asn Gly Arg Arg Gly Gly Phe Gly Ser Arg Gly Gln
 165 170 175

Pro Arg Gln Gly Ser Pro Val Ala Ala Gly Ala Pro Ala Lys Gln Gln
 180 185 190

Gln Val Asp Ile Pro Leu Arg Leu Leu Val Pro Thr Gln Tyr Val Gly
 195 200 205

Ala Ile Ile Gly Lys Glu Gly Ala Thr Ile Arg Asn Ile Thr Lys Gln
 210 215 220

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Thr | Gln | Ser | Lys | Ile | Asp | Val | His | Arg | Lys | Glu | Asn | Ala | Gly | Ala | Ala | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Glu | Lys | Ala | Ile | Ser | Val | His | Ser | Thr | Pro | Glu | Gly | Cys | Ser | Ser | Ala | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |
| Cys | Lys | Met | Ile | Leu | Glu | Ile | Met | His | Lys | Glu | Ala | Lys | Asp | Thr | Lys | |
| | | | 260 | | | | | 265 | | | | | 270 | | | |
| Thr | Ala | Asp | Glu | Val | Pro | Leu | Lys | Ile | Leu | Ala | His | Asn | Asn | Phe | Val | |
| | | 275 | | | | | 280 | | | | | 285 | | | | |
| Gly | Arg | Leu | Ile | Gly | Lys | Glu | Gly | Arg | Asn | Leu | Lys | Lys | Val | Glu | Gln | |
| | 290 | | | | | 295 | | | | | 300 | | | | | |
| Asp | Thr | Glu | Thr | Lys | Ile | Thr | Ile | Ser | Ser | Leu | Gln | Asp | Leu | Thr | Leu | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | |
| Tyr | Asn | Pro | Glu | Arg | Thr | Ile | Thr | Val | Lys | Gly | Ala | Ile | Glu | Asn | Cys | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |
| Cys | Arg | Ala | Glu | Gln | Glu | Ile | Met | Lys | Lys | Val | Arg | Glu | Ala | Tyr | Glu | |
| | | | 340 | | | | | 345 | | | | | 350 | | | |
| Asn | Asp | Val | Ala | Ala | Met | Ser | Leu | Gln | Ser | His | Leu | Ile | Pro | Gly | Leu | |
| | | 355 | | | | | 360 | | | | | 365 | | | | |
| Asn | Leu | Ala | Ala | Val | Gly | Leu | Phe | Pro | Ala | Ser | Ser | Ser | Ala | Val | Pro | |
| | 370 | | | | | 375 | | | | | 380 | | | | | |
| Pro | Pro | Pro | Ser | Ser | Val | Thr | Gly | Ala | Ala | Pro | Tyr | Ser | Ser | Phe | Met | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | |
| Gln | Ala | Pro | Glu | Gln | Glu | Met | Val | Gln | Val | Phe | Ile | Pro | Ala | Gln | Ala | |
| | | | | 405 | | | | | 410 | | | | | 415 | | |
| Val | Gly | Ala | Ile | Ile | Gly | Lys | Lys | Gly | Gln | His | Ile | Lys | Gln | Leu | Ser | |
| | | | 420 | | | | | 425 | | | | | 430 | | | |
| Arg | Phe | Ala | Ser | Ala | Ser | Ile | Lys | Ile | Ala | Pro | Pro | Glu | Thr | Pro | Asp | |
| | | 435 | | | | | 440 | | | | | 445 | | | | |
| Ser | Lys | Val | Arg | Met | Val | Ile | Ile | Thr | Gly | Pro | Pro | Glu | Ala | Gln | Phe | |
| | 450 | | | | | 455 | | | | | 460 | | | | | |
| Lys | Ala | Gln | Gly | Arg | Ile | Tyr | Gly | Lys | Leu | Lys | Glu | Glu | Asn | Phe | Phe | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | |
| Gly | Pro | Lys | Glu | Glu | Val | Lys | Leu | Glu | Thr | His | Ile | Arg | Val | Pro | Ala | |
| | | | | 485 | | | | | 490 | | | | | 495 | | |
| Ser | Ala | Ala | Gly | Arg | Val | Ile | Gly | Lys | Gly | Gly | Lys | Thr | Val | Asn | Glu | |
| | | | 500 | | | | | 505 | | | | | 510 | | | |

Leu Gln Asn Leu Thr Ala Ala Glu Val Val Val Pro Arg Asp Gln Thr
 515 520 525

Pro Asp Glu Asn Asp Gln Val Ile Val Lys Ile Ile Gly His Phe Tyr
 530 535 540

Ala Ser Gln Met Ala Gln Arg Lys Ile Arg Asp Ile Leu Ala Gln Val
 545 550 555 560

Lys Gln Gln His Gln Lys Gly Gln Ser Asn Gln Ala Gln Ala Arg Arg
 565 570 575

Lys

<210> 501

<211> 587

<212> PRT

<213> Homo sapiens

<400> 501

Met Asn Lys Leu Tyr Ile Gly Asn Leu Ser Pro Ala Val Thr Ala Asp
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Asp Leu Arg Gln Leu Phe Gly Asp Arg Lys Leu Pro Leu Ala Gly Gln
 20 25 30

Val Leu Leu Lys Ser Gly Tyr Ala Phe Val Asp Tyr Pro Asp Gln Asn
 35 40 45

Trp Ala Ile Arg Ala Ile Glu Thr Leu Ser Gly Lys Val Glu Leu His
 50 55 60

Gly Lys Ile Met Glu Val Asp Tyr Ser Val Ser Lys Lys Leu Arg Ser
 65 70 75 80

Arg Lys Ile Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu Val
 85 90 95

Leu Asp Gly Leu Leu Ala Gln Tyr Gly Thr Val Glu Asn Val Glu Gln
 100 105 110

Val Asn Thr Asp Thr Glu Thr Ala Val Val Asn Val Thr Tyr Ala Thr
 115 120 125

Arg Glu Glu Ala Lys Ile Ala Met Glu Lys Leu Ser Gly His Gln Phe
 130 135 140

Glu Asn Tyr Ser Phe Lys Ile Ser Tyr Ile Pro Asp Glu Glu Val Ser
 145 150 155 160

Ser Pro Ser Pro Pro Gln Arg Ala Gln Arg Gly Asp His Ser Ser Arg

| 165 | | | | | 170 | | | | | 175 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Gln | Gly | His | Ala | Pro | Gly | Gly | Thr | Ser | Gln | Ala | Arg | Gln | Ile | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Phe | Pro | Leu | Arg | Ile | Leu | Val | Pro | Thr | Gln | Phe | Val | Gly | Ala | Ile | Ile |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gly | Lys | Glu | Gly | Leu | Thr | Ile | Lys | Asn | Ile | Thr | Lys | Gln | Thr | Gln | Ser |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Arg | Val | Asp | Ile | His | Arg | Lys | Glu | Asn | Ser | Gly | Ala | Ala | Glu | Lys | Pro |
| 225 | | | | | | 230 | | | | | 235 | | | | 240 |
| Val | Thr | Ile | His | Ala | Thr | Pro | Glu | Gly | Thr | Ser | Glu | Ala | Cys | Arg | Met |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ile | Leu | Glu | Ile | Met | Gln | Lys | Glu | Ala | Asp | Glu | Thr | Lys | Leu | Ala | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Glu | Ile | Pro | Leu | Lys | Ile | Leu | Ala | His | Asn | Gly | Leu | Val | Gly | Arg | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ile | Gly | Lys | Glu | Gly | Arg | Asn | Leu | Lys | Lys | Ile | Glu | His | Glu | Thr | Gly |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Thr | Lys | Ile | Thr | Ile | Ser | Ser | Leu | Gln | Asp | Leu | Ser | Ile | Tyr | Asn | Pro |
| 305 | | | | | | 310 | | | | | 315 | | | | 320 |
| Glu | Arg | Thr | Ile | Thr | Val | Lys | Gly | Thr | Val | Glu | Ala | Cys | Ala | Ser | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Glu | Ile | Glu | Ile | Met | Lys | Lys | Leu | Arg | Glu | Ala | Phe | Glu | Asn | Asp | Met |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Leu | Ala | Val | Asn | Gln | Gln | Ala | Asn | Leu | Ile | Pro | Gly | Leu | Asn | Leu | Ser |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ala | Leu | Gly | Ile | Phe | Ser | Thr | Gly | Leu | Ser | Val | Leu | Ser | Pro | Pro | Ala |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Gly | Pro | Arg | Gly | Ala | Pro | Pro | Ala | Ala | Pro | Tyr | His | Pro | Phe | Thr | Thr |
| 385 | | | | | | 390 | | | | | 395 | | | | 400 |
| His | Ser | Gly | Tyr | Phe | Ser | Ser | Leu | Tyr | Pro | His | His | Gln | Phe | Gly | Pro |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Phe | Pro | His | His | His | Ser | Tyr | Pro | Glu | Gln | Glu | Ile | Val | Asn | Leu | Phe |
| | | | 420 | | | | 425 | | | | | 430 | | | |
| Ile | Pro | Thr | Gln | Ala | Val | Gly | Ala | Ile | Ile | Gly | Lys | Lys | Gly | Ala | His |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ile | Lys | Gln | Leu | Ala | Arg | Phe | Ala | Gly | Ala | Ser | Ile | Lys | Ile | Ala | Pro |

| | | | | |
|---|-----|-----|-----|-----|
| 450 | | 455 | | 460 |
| Ala Glu Gly Pro Asp Val Ser Glu Arg Met Val Ile Ile Thr Gly Pro | | | | |
| 465 | | 470 | | 480 |
| Pro Glu Ala Gln Phe Lys Ala Gln Gly Arg Ile Phe Gly Lys Leu Lys | | | | |
| | 485 | | 490 | 495 |
| Glu Glu Asn Phe Phe Asn Pro Lys Glu Glu Val Lys Leu Glu Ala His | | | | |
| | 500 | | 505 | 510 |
| Ile Arg Val Pro Ser Ser Thr Ala Gly Arg Val Ile Gly Lys Gly Gly | | | | |
| | 515 | | 520 | 525 |
| Lys Thr Val Asn Glu Leu Gln Asn Leu Thr Ser Ala Glu Val Ile Val | | | | |
| | 530 | | 535 | 540 |
| Pro Arg Asp Gln Thr Pro Asp Glu Asn Glu Glu Val Ile Val Arg Ile | | | | |
| 545 | | 550 | | 555 |
| Ile Gly His Phe Phe Ala Ser Gln Thr Ala Gln Arg Lys Ile Arg Glu | | | | |
| | 565 | | 570 | 575 |
| Ile Val Gln Gln Val Lys Gln Gln Glu Gln Lys | | | | |
| | 580 | | 585 | |

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 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 502
 Leu Tyr Asn Pro Glu Arg Thr Ile Thr Val Lys Gly Ala Ile Glu Asn
 5 10 15

 Cys Cys Arg Ala
 20

<210> 503
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 503
 Leu Tyr Asn Pro Glu Arg Thr Ile Thr Val Lys Gly Thr Cys Glu Ala
 5 10 15

 Cys Ala Ser Ala
 20

<210> 504
 <211> 19

<212> PRT

<213> Homo sapiens

<400> 504

| | | | | | | | | | | | | | | | |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asn | Lys | Leu | Tyr | Ile | Gly | Asn | Leu | Ser | Glu | Asn | Ala | Ala | Pro | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp Leu Glu | | | | | | | | | | | | | | | |

<210> 505

<211> 20

<212> PRT

<213> Homo sapiens

<400> 505

| | | | | | | | | | | | | | | | |
|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Glu | Asn | Ala | Ala | Pro | Ser | Asp | Leu | Glu | Ser | Ile | Phe | Lys | Asp | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys Ile Pro Val | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | |

<210> 506

<211> 20

<212> PRT

<213> Homo sapiens

<400> 506

| | | | | | | | | | | | | | | | |
|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ile | Phe | Lys | Asp | Ala | Lys | Ile | Pro | Val | Ser | Gly | Pro | Phe | Leu | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys Thr Gly Tyr | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | |

<210> 507

<211> 20

<212> PRT

<213> Homo sapiens

<400> 507

| | | | | | | | | | | | | | | | |
|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gly | Pro | Phe | Leu | Val | Lys | Thr | Gly | Tyr | Ala | Phe | Val | Asp | Cys | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp Glu Ser Trp | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | |

<210> 508

<211> 20

<212> PRT

<213> Homo sapiens

<400> 508

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Phe | Val | Asp | Cys | Pro | Asp | Glu | Ser | Trp | Ala | Leu | Lys | Ala | Ile | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

Ala Leu Ser Gly
20

<210> 509
<211> 20
<212> PRT
<213> Homo sapiens

<400> 509
Ala Leu Lys Ala Ile Glu Ala Leu Ser Gly Lys Ile Glu Leu His Gly
1 5 10 15
Lys Pro Ile Glu
20

<210> 510
<211> 20
<212> PRT
<213> Homo sapiens

<400> 510
Lys Ile Glu Leu His Gly Lys Pro Ile Glu Val Glu His Ser Val Pro
1 5 10 15
Lys Arg Gln Arg
20

<210> 511
<211> 20
<212> PRT
<213> Homo sapiens

<400> 511
Val Glu His Ser Val Pro Lys Arg Gln Arg Ile Arg Lys Leu Gln Ile
1 5 10 15
Arg Asn Ile Pro
20

<210> 512
<211> 20
<212> PRT
<213> Homo sapiens

<400> 512
Ile Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu
1 5 10 15
Val Leu Asp Ser
20

<210> 513
<211> 20

<212> PRT
 <213> Homo sapiens

<400> 513
 Pro His Leu Gln Trp Glu Val Leu Asp Ser Leu Leu Val Gln Tyr Gly
 1 5 10 15
 Val Val Glu Ser
 20

<210> 514
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 514
 Leu Leu Val Gln Tyr Gly Val Val Glu Ser Cys Glu Gln Val Asn Thr
 1 5 10 15
 Asp Ser Glu Thr
 20

<210> 515
 <211> 19
 <212> PRT
 <213> Homo sapiens

<400> 515
 Glu Gln Val Asn Thr Asp Ser Glu Thr Ala Val Val Asn Val Thr Tyr
 1 5 10 15
 Ser Ser Lys

<210> 516
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 516
 Ala Val Val Asn Val Thr Tyr Ser Ser Lys Asp Gln Ala Arg Gln Ala
 1 5 10 15
 Leu Asp Lys Leu
 20

<210> 517
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 517
 Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu Glu
 1 5 10 15

Asn Phe Thr Leu
20

<210> 518
<211> 20
<212> PRT
<213> Homo sapiens

<400> 518
Asn Gly Phe Gln Leu Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro
1 5 10 15
Asp Glu Thr Ala
20

<210> 519
<211> 20
<212> PRT
<213> Homo sapiens

<400> 519
Lys Val Ala Tyr Ile Pro Asp Glu Thr Ala Ala Gln Gln Asn Pro Leu
1 5 10 15
Gln Gln Pro Arg
20

<210> 520
<211> 20
<212> PRT
<213> Homo sapiens

<400> 520
Ala Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly
1 5 10 15
Gln Arg Gly Ser
20

<210> 521
<211> 20
<212> PRT
<213> Homo sapiens

<400> 521
Gly Arg Arg Gly Leu Gly Gln Arg Gly Ser Ser Arg Gln Gly Ser Pro
1 5 10 15
Gly Ser Val Ser
20

<210> 522
<211> 20

<212> PRT
 <213> Homo sapiens

<400> 522
 Ser Arg Gln Gly Ser Pro Gly Ser Val Ser Lys Gln Lys Pro Cys Asp
 1 5 10 15
 Leu Pro Leu Arg
 20

<210> 523
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 523
 Lys Gln Lys Pro Cys Asp Leu Pro Leu Arg Leu Leu Val Pro Thr Gln
 1 5 10 15
 Phe Val Gly Ala
 20

<210> 524
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 524
 Leu Leu Val Pro Thr Gln Phe Val Gly Ala Ile Ile Gly Lys Glu Gly
 1 5 10 15
 Ala Thr Ile Arg
 20

<210> 525
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 525
 Ile Ile Gly Lys Glu Gly Ala Thr Ile Arg Asn Ile Thr Lys Gln Thr
 1 5 10 15
 Gln Ser Lys Ile
 20

<210> 526
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 526
 Asn Ile Thr Lys Gln Thr Gln Ser Lys Ile Asp Val His Arg Lys Glu
 1 5 10 15

Asn Ala Gly Ala
20

<210> 527
<211> 20
<212> PRT
<213> Homo sapiens

<400> 527
Asp Val His Arg Lys Glu Asn Ala Gly Ala Ala Glu Lys Ser Ile Thr
1 5 10 15
Ile Leu Ser Thr
20

<210> 528
<211> 20
<212> PRT
<213> Homo sapiens

<400> 528
Ala Glu Lys Ser Ile Thr Ile Leu Ser Thr Pro Glu Gly Thr Ser Ala
1 5 10 15
Ala Cys Lys Ser
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<210> 529
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<213> Homo sapiens

<400> 529
Pro Glu Gly Thr Ser Ala Ala Cys Lys Ser Ile Leu Glu Ile Met His
1 5 10 15
Lys Glu Ala Gln
20

<210> 530
<211> 20
<212> PRT
<213> Homo sapiens

<400> 530
Ile Leu Glu Ile Met His Lys Glu Ala Gln Asp Ile Lys Phe Thr Glu
1 5 10 15
Glu Ile Pro Leu
20

<210> 531
<211> 20

<212> PRT
 <213> Homo sapiens

<400> 531
 Asp Ile Lys Phe Thr Glu Glu Ile Pro Leu Lys Ile Leu Ala His Asn
 1 5 10 15
 Asn Phe Val Gly
 20

<210> 532
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 532
 Lys Ile Leu Ala His Asn Asn Phe Val Gly Arg Leu Ile Gly Lys Glu
 1 5 10 15
 Gly Arg Asn Leu
 20

<210> 533
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 533
 Arg Leu Ile Gly Lys Glu Gly Arg Asn Leu Lys Lys Ile Glu Gln Asp
 1 5 10 15
 Thr Asp Thr Lys
 20

<210> 534
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 534
 Lys Lys Ile Glu Gln Asp Thr Asp Thr Lys Ile Thr Ile Ser Pro Leu
 1 5 10 15
 Gln Glu Leu Thr
 20

<210> 535
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 535
 Ile Thr Ile Ser Pro Leu Gln Glu Leu Thr Leu Tyr Asn Pro Glu Arg
 1 5 10 15

Thr Ile Thr Val
20

<210> 536
<211> 20
<212> PRT
<213> Homo sapiens

<400> 536
Leu Tyr Asn Pro Glu Arg Thr Ile Thr Val Lys Gly Asn Val Glu Thr
1 5 10 15
Cys Ala Lys Ala
20

<210> 537
<211> 20
<212> PRT
<213> Homo sapiens

<400> 537
Lys Gly Asn Val Glu Thr Cys Ala Lys Ala Glu Glu Glu Ile Met Lys
1 5 10 15
Lys Ile Arg Glu
20

<210> 538
<211> 20
<212> PRT
<213> Homo sapiens

<400> 538
Glu Glu Glu Ile Met Lys Lys Ile Arg Glu Ser Tyr Glu Asn Asp Ile
1 5 10 15
Ala Ser Met Asn
20

<210> 539
<211> 20
<212> PRT
<213> Homo sapiens

<400> 539
Ser Tyr Glu Asn Asp Ile Ala Ser Met Asn Leu Gln Ala His Leu Ile
1 5 10 15
Pro Gly Leu Asn
20

<210> 540
<211> 20

<212> PRT
 <213> Homo sapiens

<400> 540
 Leu Gln Ala His Leu Ile Pro Gly Leu Asn Leu Asn Ala Leu Gly Leu
 1 5 10 15
 Phe Pro Pro Thr
 20

<210> 541
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 541
 Leu Asn Ala Leu Gly Leu Phe Pro Pro Thr Ser Gly Met Pro Pro Pro
 1 5 10 15
 Thr Ser Gly Pro
 20

<210> 542
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 542
 Ser Gly Met Pro Pro Pro Thr Ser Gly Pro Pro Ser Ala Met Thr Pro
 1 5 10 15
 Pro Tyr Pro Gln
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<210> 543
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 543
 Pro Ser Ala Met Thr Pro Pro Tyr Pro Gln Phe Glu Gln Ser Glu Thr
 1 5 10 15
 Glu Thr Val His Leu Phe Ile
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<210> 544
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 544
 Phe Glu Gln Ser Glu Thr Glu Thr Val His Leu Phe Ile Pro Ala Leu
 1 5 10 15

Ser Val Gly Ala
20

<210> 545
<211> 20
<212> PRT
<213> Homo sapiens

<400> 545
Leu Phe Ile Pro Ala Leu Ser Val Gly Ala Ile Ile Gly Lys Gln Gly
1 5 10 15
Gln His Ile Lys
20

<210> 546
<211> 20
<212> PRT
<213> Homo sapiens

<400> 546
Ile Ile Gly Lys Gln Gly Gln His Ile Lys Gln Leu Ser Arg Phe Ala
1 5 10 15
Gly Ala Ser Ile
20

<210> 547
<211> 21
<212> PRT
<213> Homo sapiens

<400> 547
Lys Gln Leu Ser Arg Phe Ala Gly Ala Ser Ile Lys Ile Ala Pro Ala
1 5 10 15
Glu Ala Pro Asp Ala
20

<210> 548
<211> 20
<212> PRT
<213> Homo sapiens

<400> 548
Lys Ile Ala Pro Ala Glu Ala Pro Asp Ala Lys Val Arg Met Val Ile
1 5 10 15
Ile Thr Gly Pro
20

<210> 549
<211> 20

<212> PRT
 <213> Homo sapiens

<400> 549
 Lys Val Arg Met Val Ile Ile Thr Gly Pro Pro Glu Ala Gln Phe Lys
 1 5 10 15
 Ala Gln Gly Arg
 20

<210> 550
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 550
 Pro Glu Ala Gln Phe Lys Ala Gln Gly Arg Ile Tyr Gly Lys Ile Lys
 1 5 10 15
 Glu Glu Asn Phe
 20

<210> 551
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 551
 Ile Tyr Gly Lys Ile Lys Glu Glu Asn Phe Val Ser Pro Lys Glu Glu
 1 5 10 15
 Val Lys Leu Glu
 20

<210> 552
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 552
 Val Ser Pro Lys Glu Glu Val Lys Leu Glu Ala His Ile Arg Val Pro
 1 5 10 15
 Ser Phe Ala Ala
 20

<210> 553
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 553
 Ala His Ile Arg Val Pro Ser Phe Ala Ala Gly Arg Val Ile Gly Lys
 1 5 10 15

Gly Gly Lys Thr
20

<210> 554
<211> 20
<212> PRT
<213> Homo sapiens

<400> 554
Gly Arg Val Ile Gly Lys Gly Gly Lys Thr Val Asn Glu Leu Gln Asn
1 5 10 15
Leu Ser Ser Ala
20

<210> 555
<211> 20
<212> PRT
<213> Homo sapiens

<400> 555
Val Asn Glu Leu Gln Asn Leu Ser Ser Ala Glu Val Val Val Pro Arg
1 5 10 15
Asp Gln Thr Pro
20

<210> 556
<211> 20
<212> PRT
<213> Homo sapiens

<400> 556
Glu Val Val Val Pro Arg Asp Gln Thr Pro Asp Glu Asn Asp Gln Val
1 5 10 15
Val Val Lys Ile
20

<210> 557
<211> 20
<212> PRT
<213> Homo sapiens

<400> 557
Asp Glu Asn Asp Gln Val Val Val Lys Ile Thr Gly His Phe Tyr Ala
1 5 10 15
Cys Gln Val Ala
20

<210> 558
<211> 20

<212> PRT
 <213> Homo sapiens

<400> 558
 Thr Gly His Phe Tyr Ala Cys Gln Val Ala Gln Arg Lys Ile Gln Glu
 1 5 10 15
 Ile Leu Thr Gln
 20

<210> 559
 <211> 21
 <212> PRT
 <213> Homo sapiens

<400> 559
 Ala Gln Arg Lys Ile Gln Glu Ile Leu Thr Gln Val Lys Gln His Gln
 1 5 10 15
 Gln Gln Lys Ala Leu
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<210> 560
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 560
 Val Lys Gln His Gln Gln Gln Lys Ala Leu Gln Ser Gly Pro Pro Gln
 1 5 10 15
 Ser Arg Arg Lys
 20